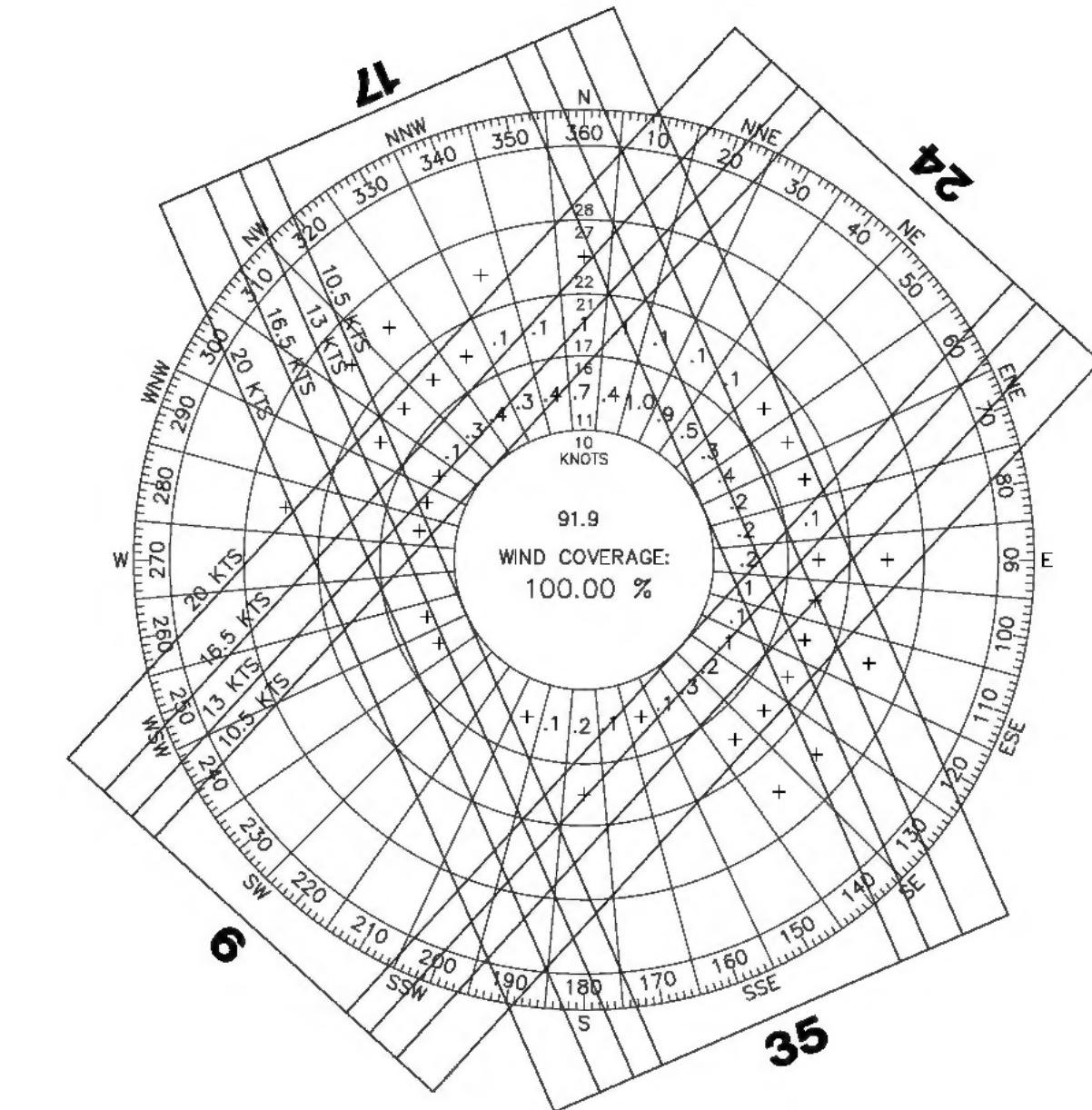
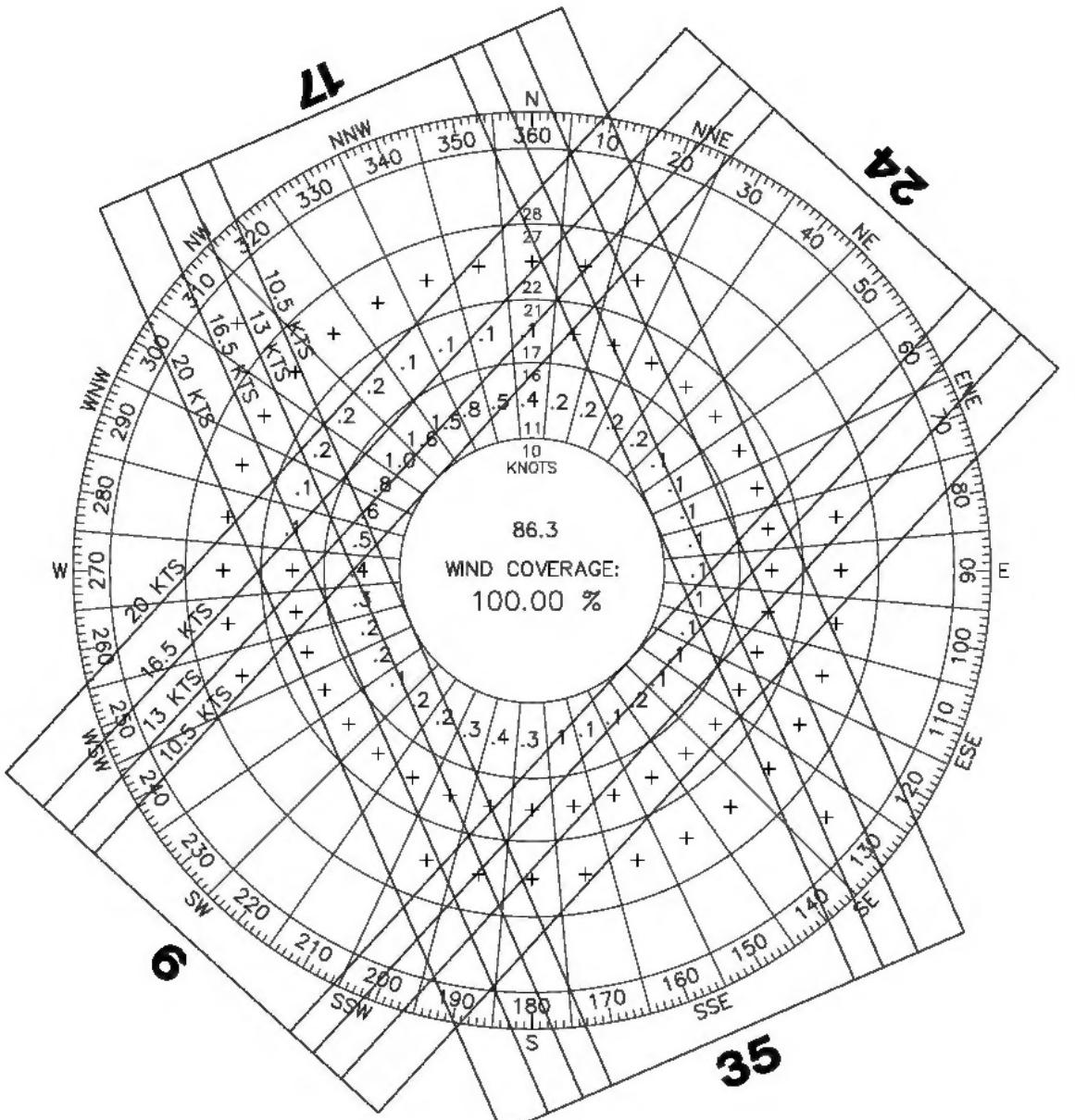


# AIRPORT LAYOUT PLANS

## MANCHESTER-BOSTON REGIONAL AIRPORT



### MANCHESTER, NEW HAMPSHIRE

PREPARED FOR:

**CITY OF MANCHESTER  
DEPARTMENT OF AVIATION**

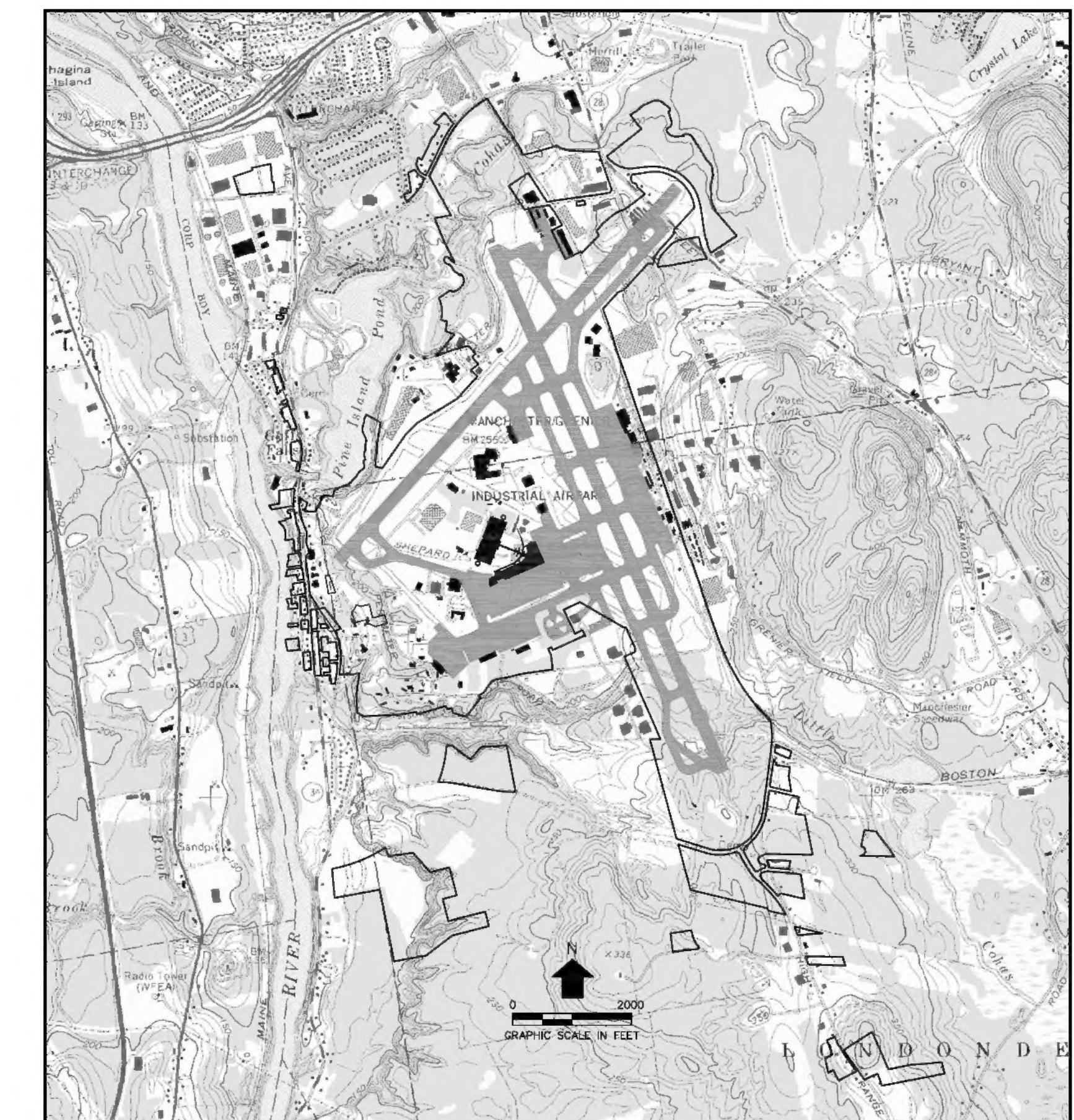
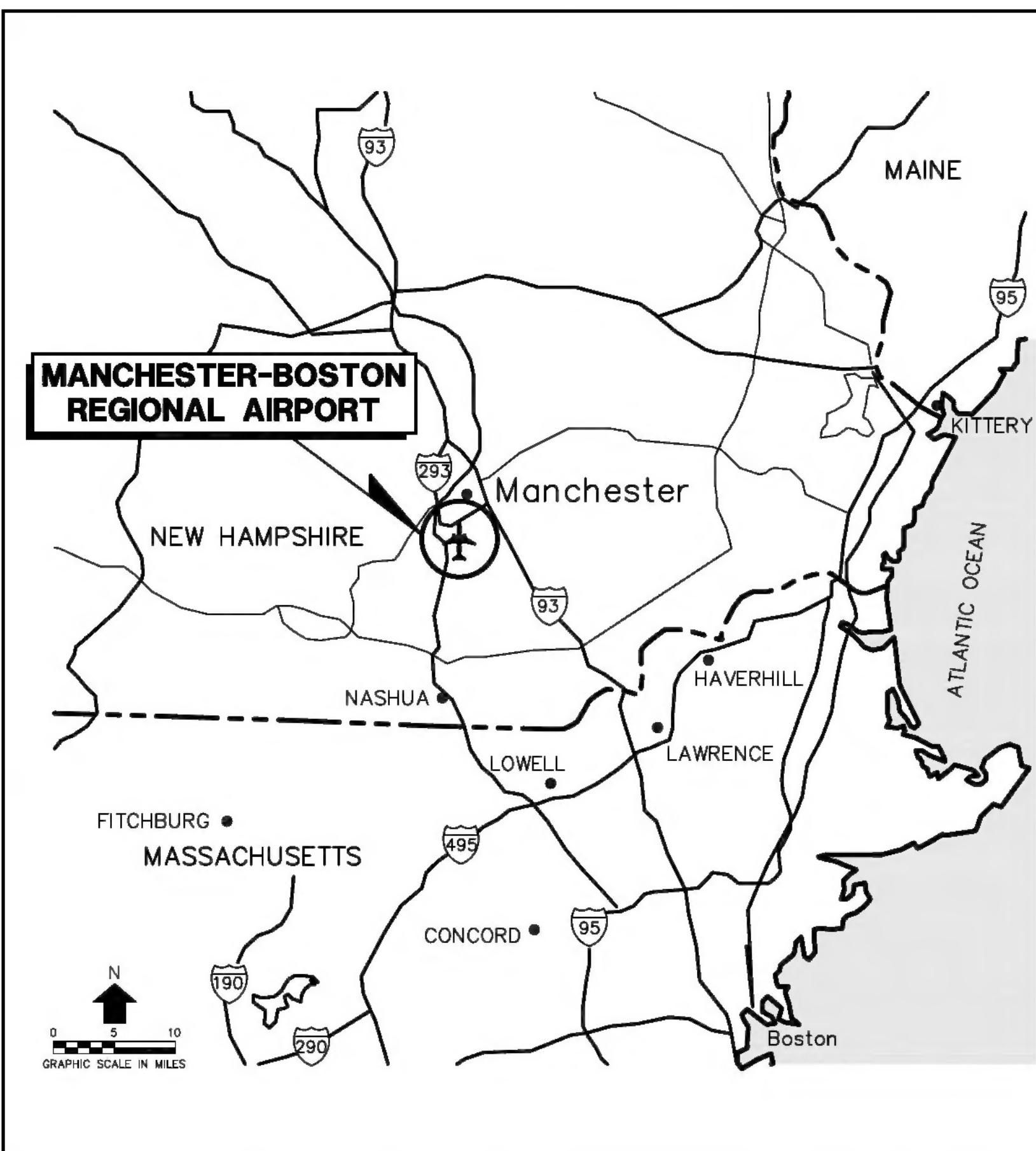
PREPARED BY:




SEPTEMBER 2011  
AIP No. 3-33-0011-76-2009

### INDEX OF DRAWINGS

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ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE - RUNWAY 24	18 OF 20
APPROACH PROFILE - RUNWAY 17/35	19 OF 20
APPROACH PROFILE - RUNWAY 6/24	20 OF 20





**PREPARED FOR**  
**CITY OF MANCHESTER**  
**DEPARTMENT OF AVIATION**  
**MANCHESTER, NEW HAMPSHIRE**

URS Manchester-Boston Regional Airport

**AIRPORT LAYOUT DRAWING**  
**MANCHESTER-BOSTON REGIONAL AIRPORT**  
**MANCHESTER, NEW HAMPSHIRE**

URS Manchester-Boston Regional Airport

**CONSTRUCTION NOTICE REQUIREMENT**

To protect operational safety and future development, all proposed construction on the property shall be coordinated with the airport owner, the FAA, and the appropriate public laws. Construction notice requirements are detailed in the construction notice requirement section of this plan.

**FAA DISCLAIMER**

The contents of this plan do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a comment on the part of the United States government on the proposed development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

**FAA APPROVAL**

In accordance with letter dated 7/1/12 APPROVED BY: 7/1/12 DATE


**STATE OF NEW HAMPSHIRE APPROVAL**

KUSC APPROVED BY: 7/1/12 DATE

**SPONSOR APPROVAL**

MLMB APPROVED BY: 7/1/12 DATE

DESIGNED: RJM  
DRAWN: RJM CHECKED: MLT  
PROJECT MANAGER: FMN  
PROJECT DIRECTOR: FMN  
DATE: 9/11 SHEET: 1 OF 20



**EXISTING AIRPORT LAYOUT (SEPTEMBER 2011)**


MANCHESTER-BOSTON REGIONAL AIRPORT

URS

CITY OF MANCHESTER  
DEPARTMENT OF AVIATION  
MANCHESTER, NEW HAMPSHIRE

DESIGNED: RJM  
DRAWN: RJM CHECKED: MLT  
PROJECT MANAGER: FMN  
PROJECT DIRECTOR: FMN

DATE: 9/11  
SHEET: 2 OF 20



# TERMINAL AREA PLAN

# MANCHESTER-BOSTON REGIONAL AIRPORT MANCHESTER, NEW HAMPSHIRE

**CITY OF MANCHESTER  
DEPARTMENT OF AVIATION  
MANCHESTER, NEW HAMPSHIRE**

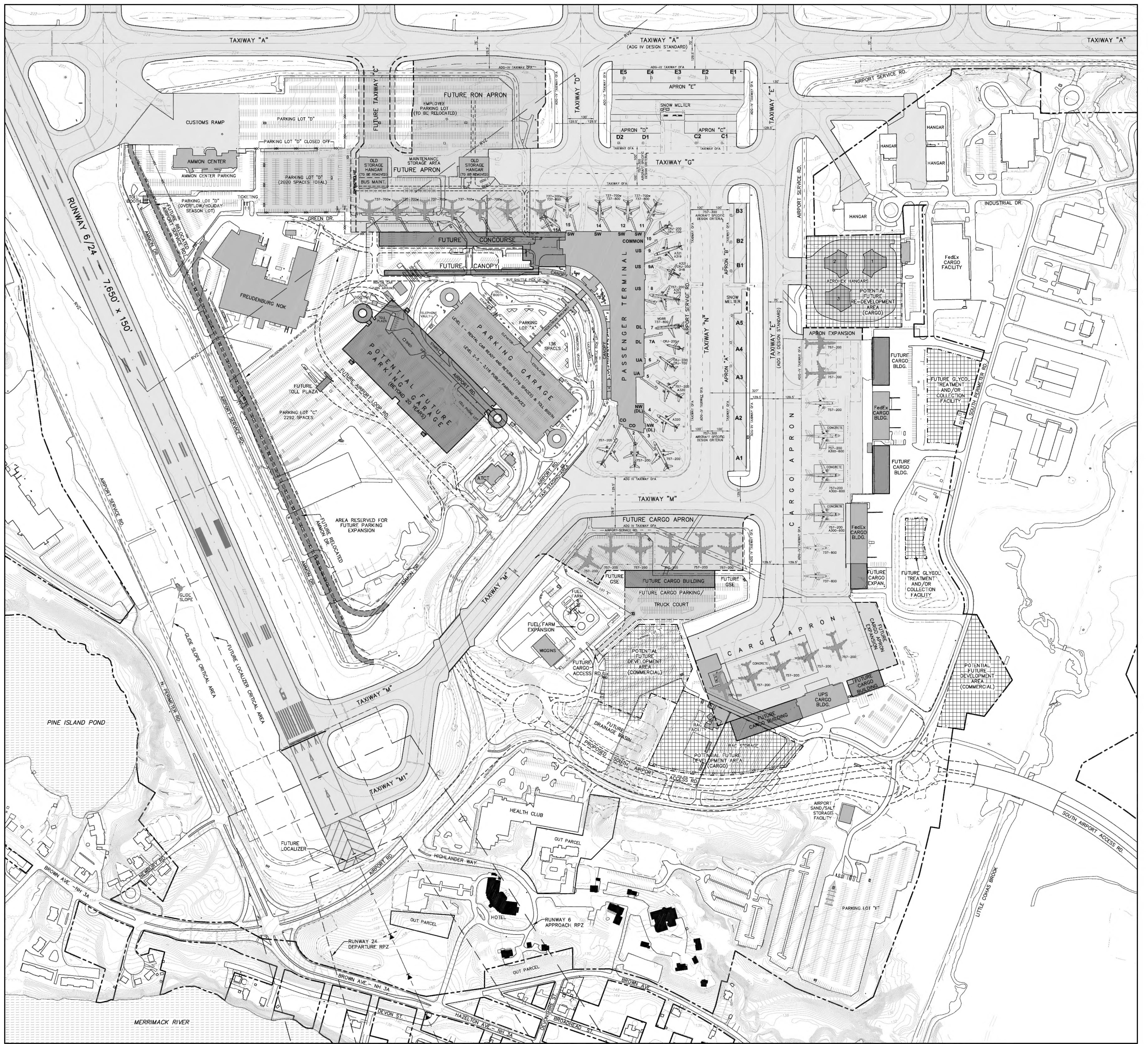
**URS**  
/650 West Courtney  
Campbell Causeway  
Tampa, FL 33607-1462  
Ph: (813) 286-1711

**Manchester-Boston**  
REGIONAL AIRPORT

**URS**  
/650 West Courtney  
Campbell Causeway  
Tampa, FL 33607-1462  
Ph: (813) 286-1711

# MANCHESTER, NEW HAMPSHIRE

**URS**  
/650 West Courtney  
Campbell Causeway  
Tampa, FL 33607-1462  
Ph: (813) 286-1711



# **TERMINAL/CARGO AREA SITE PLAN**

# **MANCHESTER-BOSTON REGIONAL AIRPORT**

## **MANCHESTER, NEW HAMPSHIRE**


**PREPARED FOR**

**CITY OF MANCHESTER**  
**DEPARTMENT OF AVIATION**  
**MANCHESTER, NEW HAMPSHIRE**

DESIGNED: RJM

R: FMN

DE 20



# AIRPORT PROPERTY MAP (EXISTING)

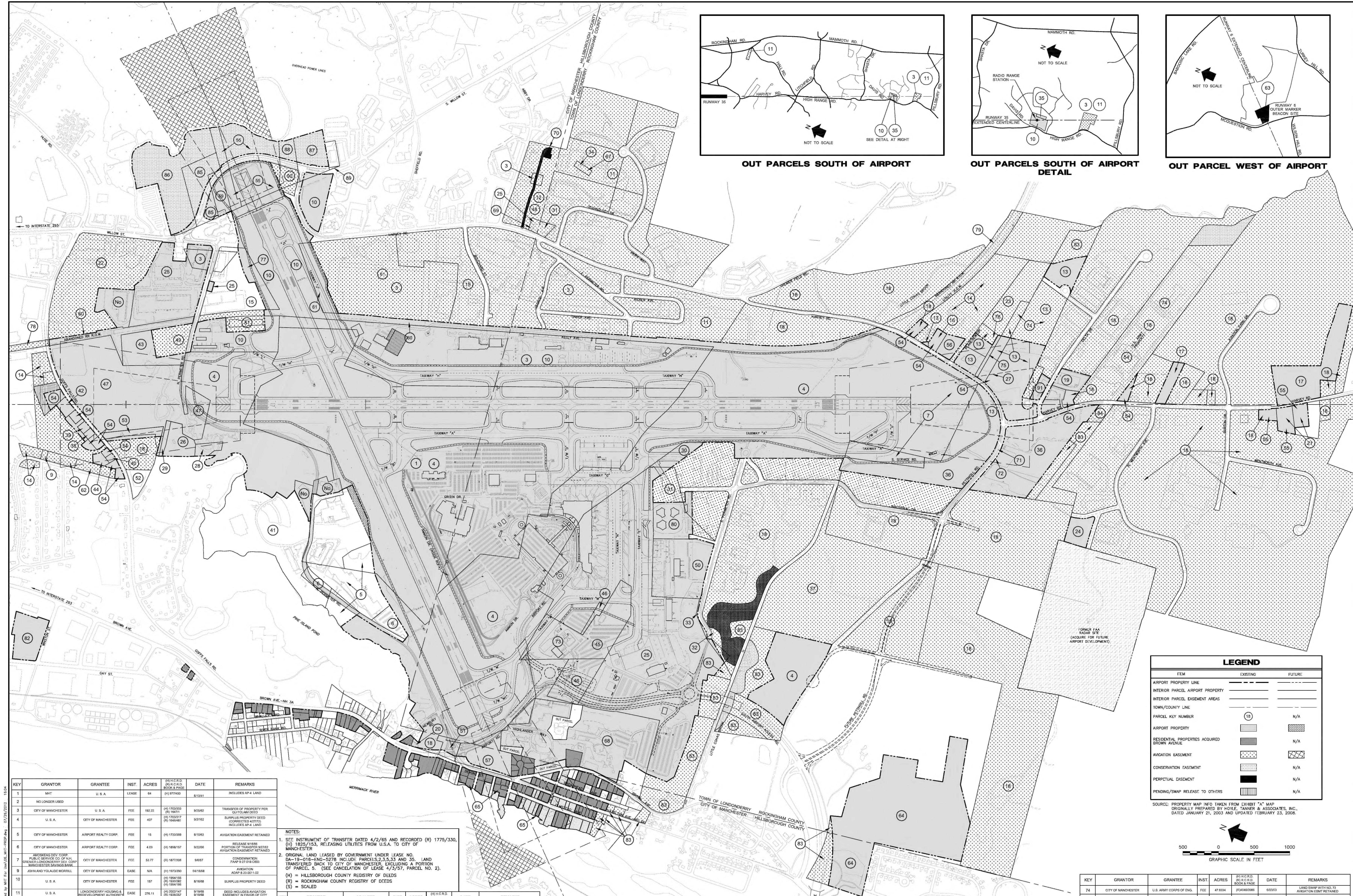
**MANCHESTER-BOSTON REGIONAL AIRPORT**  
**MANCHESTER, NEW HAMPSHIRE**

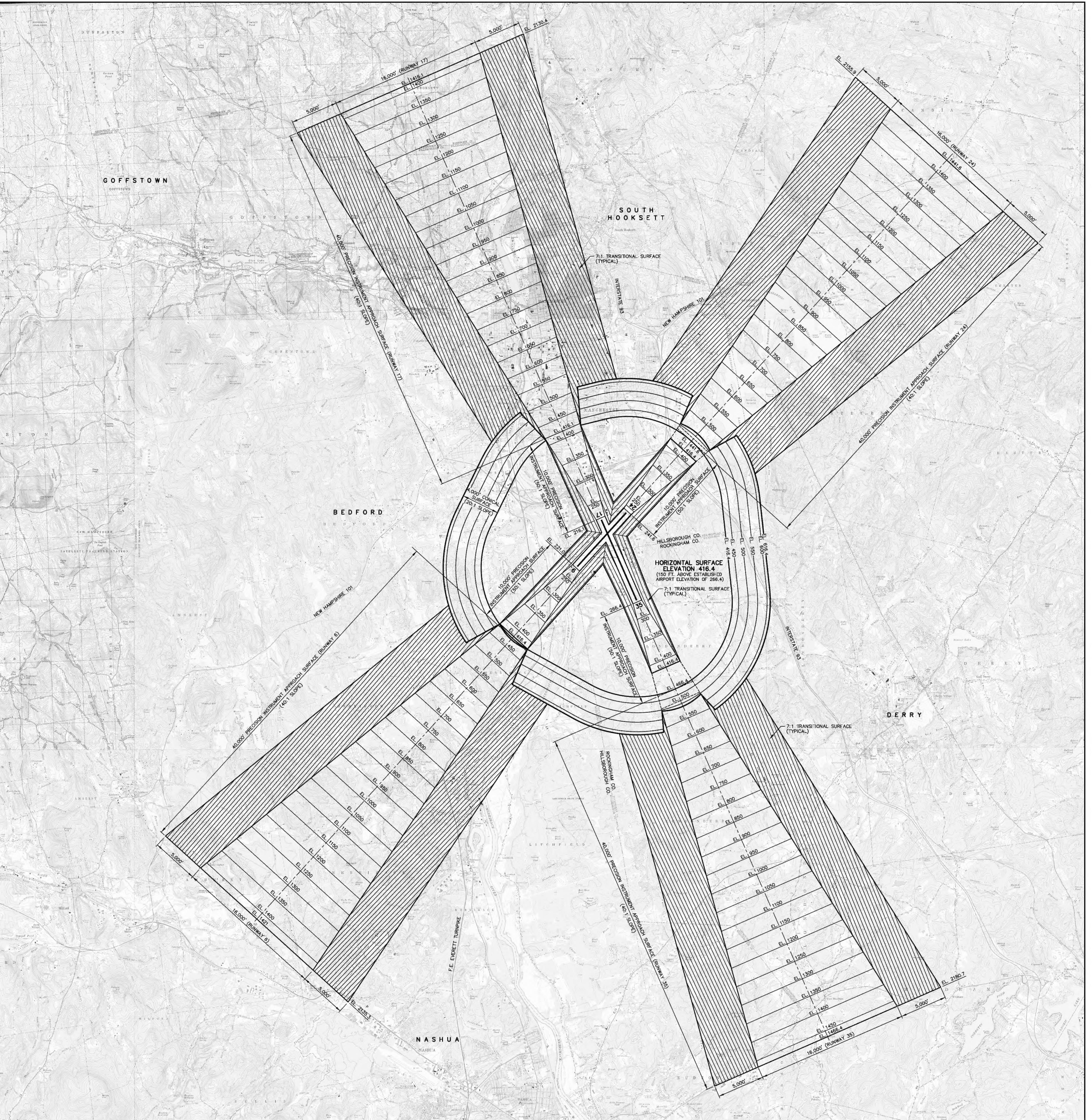
**PREPARED FOR**  
**CITY OF MANCHESTER**  
**DEPARTMENT OF AVIATION**  
**MANCHESTER, NEW HAMPSHIRE**

LEGEND	
ITEM	EXISTING FUTURE
AIRPORT PROPERTY LINE	—
INTERIOR PARCEL AIRPORT PROPERTY	—
INTERIOR PARCEL EASEMENT AREAS	—
TOWN/COUNTY LINE	—
PARCEL KEY NUMBER	18 N/A
AIRPORT PROPERTY	■ N/A
RESIDENTIAL PROPERTIES ACQUIRED BROWN AVENUE	■ N/A
AVIATION EASEMENT	■ N/A
CONSERVATION EASEMENT	■ N/A
PERPETUAL EASEMENT	■ N/A
PENDING/SWAP RELEASE TO OTHERS	N/A

SOURCE: PROPERTY MAP INFO TAKEN FROM EXHIBIT "A" MAP  
ORIGINALLY PREPARED BY HOYLE, TANNER & ASSOCIATES, INC.  
DATED JANUARY 21, 2003 AND UPDATED FEBRUARY 23, 2008.

500 0 500 1000  
GRAPHIC SCALE IN FEET





# **AIRPORT AIRSPACE PLAN**

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# **MANCHESTER-BOSTON REGIONAL AIRPORT**

# MANCHESTER-BOSTON REGIONAL AIRPORT MANCHESTER, NEW HAMPSHIRE

# CITY OF MANCHESTER DEPARTMENT OF AVIATION MANCHESTER, NEW HAMPSHIRE


**URS**  
7650 West Courtney  
Campbell Causeway  
Tampa, FL 33607-1462  
Ph: (813) 286-1711

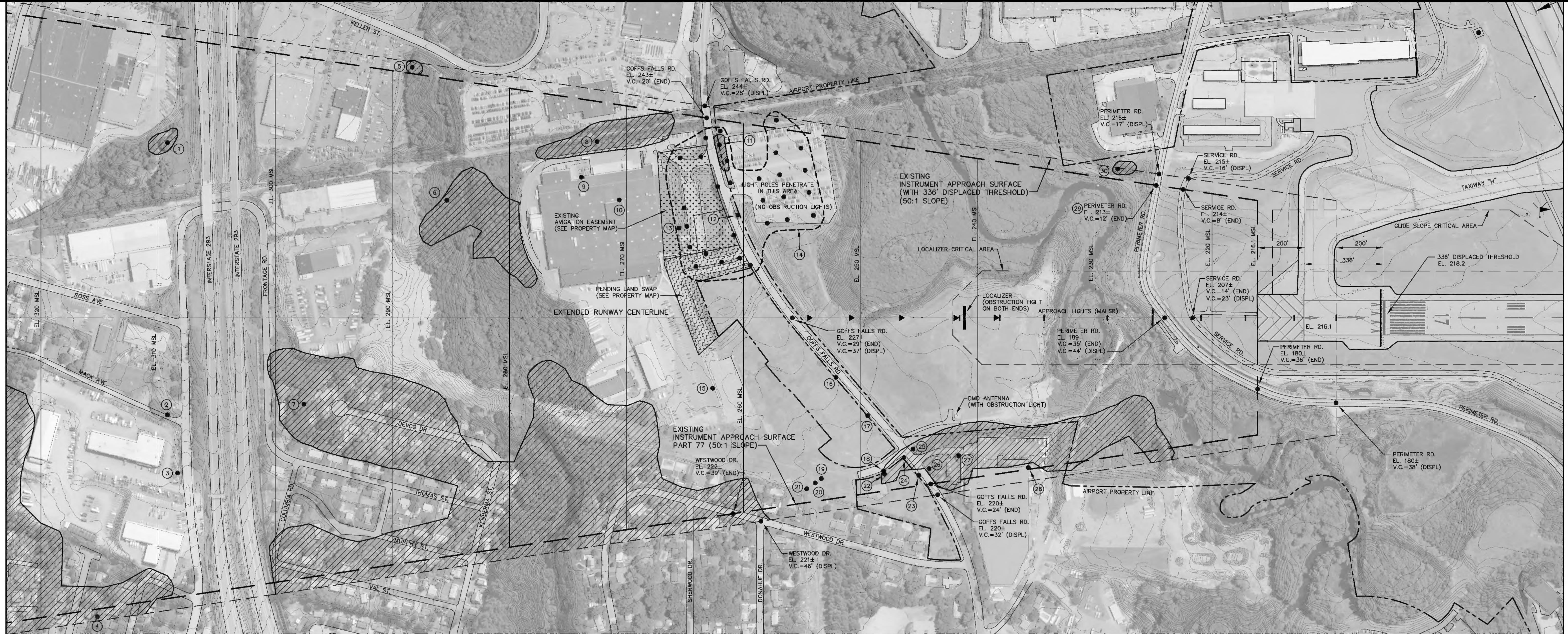
**Manchester-Boston**  
REGIONAL AIRPORT

PART AIRSPACE PLAN (INNER PORTION)  
OF 17 FOR OBSTACLE INFORMATION.

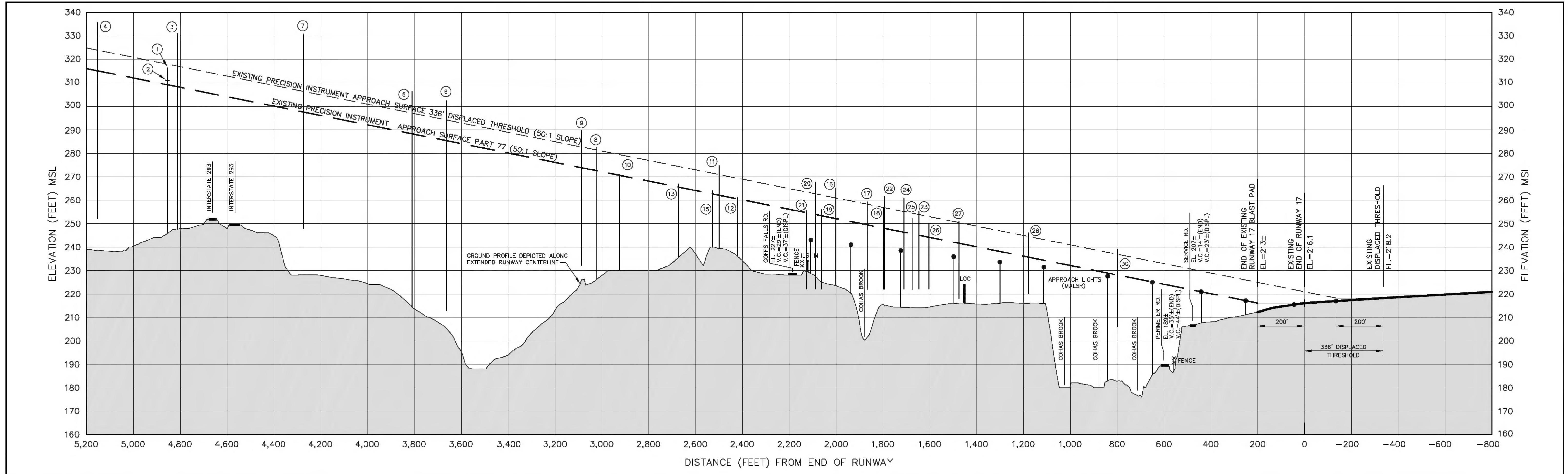
A graphic scale bar and north arrow. The scale bar is marked at 0, 4000, and 8000 feet. A black arrow points upwards, labeled 'N' above it, indicating North.

SIGNED: RJM  
OWN: RJM CHECKED: MLT  
JECT MANAGER: FMN  
JECT DIRECTOR: FMN  
DATE: 9/11



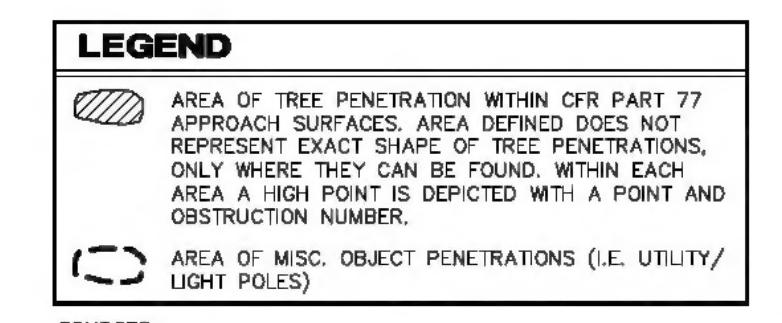


**RUNWAY 17 INNER PORTION OF THE APPROACH SURFACE PLAN VIEW**



**RUNWAY 17 INNER PORTION OF THE APPROACH SURFACE PROFILE VIEW**

OBSTACLE DATA TABLE													
NO.	DESCRIPTION	OBSTACLE ELEVATION FEET (MSL)	LOWEST AFFECTED SURF ACC.	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED	NO.	DESCRIPTION	OBSTACLE ELEVATION FEET (MSL)	LOWEST AFFECTED SURF ACC.	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED
1	TREE CLUSTER WITH HIGH POINT DEPICTED	316	RW 17 APPROACH	1-19	TRIM OR REMOVE	NO	16	UTILITY POLE	265	RW 17 APPROACHED APPROACH	12/4	LIGHT	NO
2	TREE CLUSTER WITH HIGH POINT DEPICTED	317	RW 17 APPROACH	2	TRIM OR REMOVE	NO	17	UTILITY POLE	259	RW 17 APPROACHED APPROACH	10/7	LIGHT	NO
3	TREE CLUSTER WITH HIGH POINT DEPICTED	331	RW 17 APPROACH/DISPLACED APPROACH	23/14	TRIM OR REMOVE	NO	18	UTILITY POLE	257	RW 17 APPROACH	9	LIGHT	NO
4	TREE CLUSTER WITH HIGH POINT DEPICTED	336	RW 17 APPROACH/DISPLACED APPROACH	12	TRIM OR REMOVE	NO	19	UTILITY POLE	256	RW 17 APPROACH	3	LIGHT	NO
5	TREE CLUSTER WITH HIGH POINT DEPICTED	307	RW 17 APPROACHED APPROACH	17/8	TRIM OR REMOVE	NO	20	UTILITY POLE	268	RW 17 APPROACHED APPROACH	14/5	LIGHT	NO
6	TREE CLUSTER WITH HIGH POINT DEPICTED	302	RW 17 APPROACHED APPROACH	12/25	TRIM OR REMOVE	NO	21	UTILITY POLE	254	RW 17 APPROACHED APPROACH	10/1	LIGHT	NO
7	TREE CLUSTER WITH HIGH POINT DEPICTED	331	RW 17 APPROACHED APPROACH	9/1	TRIM OR REMOVE	NO	22	UTILITY POLE	250	RW 17 APPROACHED APPROACH	14/9	TRIM OR REMOVE	NO
8	TREE CLUSTER WITH HIGH POINT DEPICTED	307	RW 17 APPROACHED APPROACH	16/7	LIGHT	NO	23	UTILITY POLE	255	RW 17 APPROACHED APPROACH	10/1	LIGHT	NO
9	BUILDING CHIMNEY	295	RW 17 APPROACHED APPROACH	16/7	LIGHT	NO	24	UTILITY POLE	261	RW 17 APPROACHED APPROACH	15/6	LIGHT	NO
10	BUILDING	272	RW 17 APPROACH	1	TRIM OR REMOVE	NO	25	UTILITY POLE	252	RW 17 APPROACH	6	LIGHT	NO
11	TREE CLUSTER WITH HIGH POINT DEPICTED	275	RW 17 APPROACHED APPROACH	13/4	TRIM OR REMOVE	NO	26	UTILITY POLE	250	RW 17 APPROACHED APPROACH	8/1	LIGHT	NO
12	TREE CLUSTER WITH HIGH POINT DEPICTED	298	RW 17 APPROACHED APPROACH	1-19	TRIM OR REMOVE	NO	27	UTILITY POLE	250	RW 17 APPROACHED APPROACH	10/1	LIGHT	NO
13	TREE CLUSTER WITH HIGH POINT DEPICTED	298	RW 17 APPROACHED APPROACH	1-19	TRIM OR REMOVE	NO	28	BUILDING	246	RW 17 APPROACHED APPROACH	10/2	LIGHT	NO
14	TREE CLUSTER WITH HIGH POINT DEPICTED	298	RW 17 APPROACHED APPROACH	1-19	TRIM OR REMOVE	NO	29	PERIMETER ROAD	213	RW 17 APPROACH	3	NONE	NO
15	LIGHT POLE	264	RW 17 APPROACH	1	LIGHT	NO	30	TREE CLUSTER WITH HIGH POINT DEPICTED	239	RW 17 DISPLACED APPROACH	2	TRIM OR REMOVE	NO

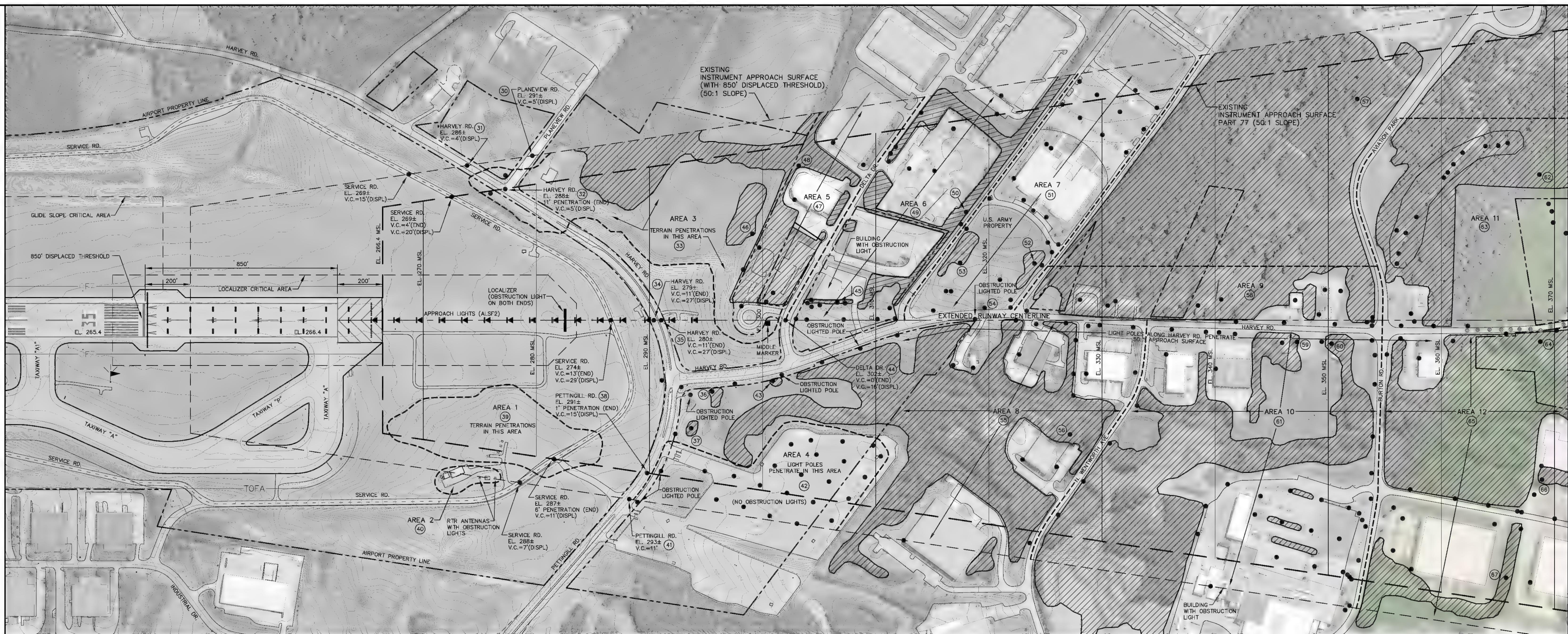


SOURCES:  
BASE MAP: AERIAL PHOTOGRAPH PROVIDED BY MANCHESTER-BOSTON REGIONAL AIRPORT, DATED 2009  
OBSTACLE DATA: FEDERAL AVIATION ADMINISTRATION DIGITAL AIRPORT INFORMATION DIGITAL OBSTACLE FILE, EFFECTIVE JUNE, 2010.  
HOYLE, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS, DATED SEPTEMBER, 2009.

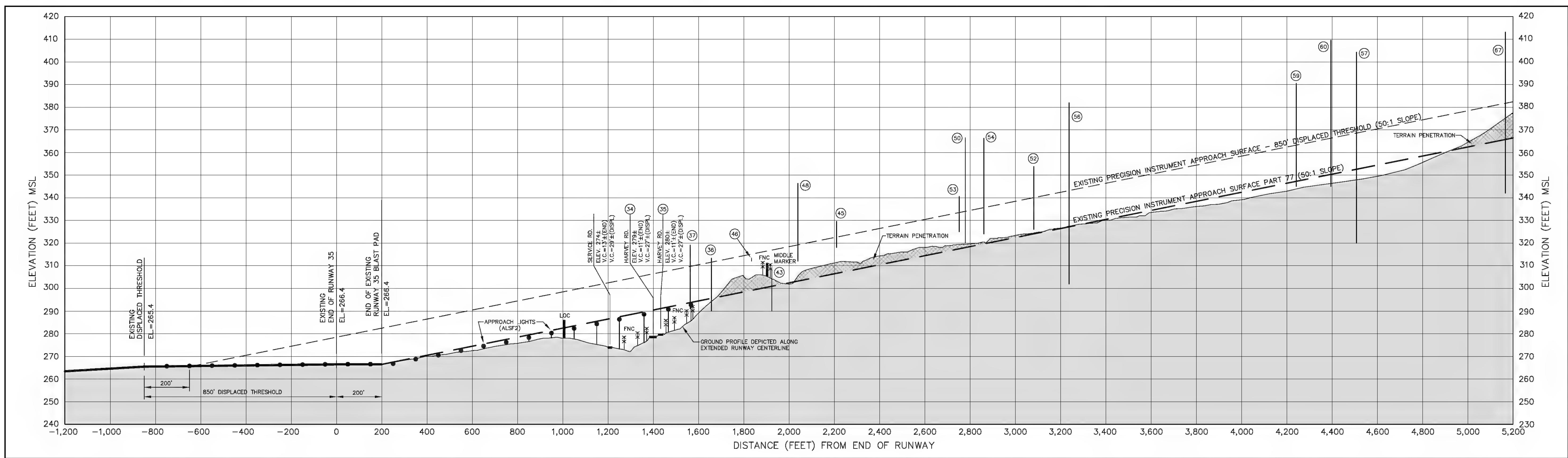
DESIGNED: RUM  
DRAWN: RUM CHECKED: MLT  
PROJECT MANAGER: FMN  
PROJECT DIRECTOR: FMN  
DATE: 9/11  
SHEET: 9 OF 20

**PREPARED FOR**  
**CITY OF MANCHESTER**  
**DEPARTMENT OF AVIATION**  
**MANCHESTER, NEW HAMPSHIRE**

**INNER PORTION OF THE APPROACH SURFACE DRAWING - RUNWAY 17**  
**MANCHESTER-BOSTON REGIONAL AIRPORT**  
**MANCHESTER, NEW HAMPSHIRE**



RUNWAY 35 INNER PORTION OF THE APPROACH SURFACE PLAN VIEW



## **RUNWAY 35 INNER PORTION OF THE APPROACH SURFACE PROFILE VIEW**

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OBSTACLE DATA TABLE																				
NO.	DESCRIPTION	OBSTACLE ELEVATION FEET (MSL)	LOWEST AFFECTED SURFACE	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED	NO.	DESCRIPTION	OBSTACLE ELEVATION FEET (MSL)	LOWEST AFFECTED SURFACE	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED	NO.	DESCRIPTION	OBSTACLE ELEVATION FEET (MSL)	LOWEST AFFECTED SURFACE	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED
30	PLANEVIEW ROAD	291	RW 35 DISPLACED APPROACH	10	NONE	NO	43	TREE CLUSTER WITH HIGH POINT DEPICTED	309	RW 35 APPROACH	8	TRIM OR REMOVE	NO	56	TREE CLUSTER WITH HIGH POINT DEPICTED	382	RW 35 APPROACH/DISPLACED APPROACH	55/39	TRIM OR REMOVE	NO
31	HARVEY ROAD	286	RW 35 DISPLACED APPROACH	11	NONE	NO	44	DELTA DRIVE	302	RW 35 APPROACH	15	NONE	NO	57	TREE CLUSTER WITH HIGH POINT DEPICTED	404	RW 35 APPROACH/DISPLACED APPROACH	51/35	TRIM OR REMOVE	NO
32	HARVEY ROAD	288	RW 35 APPROACH/DISPLACED APPROACH	26/10	NONE	NO	45	TREE CLUSTER WITH HIGH POINT DEPICTED	330	RW 35 APPROACH/DISPLACED APPROACH	23/7	NONE	NO	58	AREA 9-TOPO, BLDGS, LIGHT/UTIL. POLES, SIGNS	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO
33	AREA 3-TOPO, FIRE HYDRANT, SIGN BY PLANEVIEW	VARIES	RW 35 APPROACH	VARIES	NONE	NO	46	TREE CLUSTER WITH HIGH POINT DEPICTED	313	RW 35 APPROACH	14	TRIM OR REMOVE	NO	59	TREE CLUSTER WITH HIGH POINT DEPICTED	391	RW 35 APPROACH/DISPLACED APPROACH	44/28	TRIM OR REMOVE	NO
34	HARVEY ROAD	279	RW 35 APPROACH	4	NONE	NO	47	AREA 5-BLDGS, LIGHT/UTIL. POLES, SIGNS, FENCE	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO	60	TREE CLUSTER WITH HIGH POINT DEPICTED	410	RW 35 APPROACH/DISPLACED APPROACH	60/44	TRIM OR REMOVE	NO
35	HARVEY ROAD	280	RW 35 APPROACH	4	NONE	NO	48	TREE CLUSTER WITH HIGH POINT DEPICTED	346	RW 35 APPROACH/DISPLACED APPROACH	43/27	TRIM OR REMOVE	NO	61	AREA 10-TOPO, BLDGS, LIGHT/UTIL. POLES, FENCE	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO
36	TREE CLUSTER WITH HIGH POINT DEPICTED	313	RW 35 APPROACH/DISPLACED APPROACH	17/1	TRIM OR REMOVE	NO	49	AREA 6-BLDGS, LIGHT/UTIL. POLES, SIGNS, FENCE	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO	62	TREE CLUSTER WITH HIGH POINT DEPICTED	444	RW 35 APPROACH/DISPLACED APPROACH	75/59	TRIM OR REMOVE	NO
37	TREE CLUSTER WITH HIGH POINT DEPICTED	319	RW 35 APPROACH/DISPLACED APPROACH	25/9	TRIM OR REMOVE	NO	50	TREE CLUSTER WITH HIGH POINT DEPICTED	367	RW 35 APPROACH/DISPLACED APPROACH	49/33	TRIM OR REMOVE	NO	63	AREA 11-TOPO, BLDGS, LIGHT/UTIL. POLES	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO
38	PETTINGILL ROAD	291	RW 35 APPROACH	16	NONE	NO	51	AREA 7-BLDGS, LIGHT/UTIL. POLES, SIGNS, FENCE	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO	64	TREE CLUSTER WITH HIGH POINT DEPICTED	436	RW 35 APPROACH/DISPLACED APPROACH	67/51	TRIM OR REMOVE	NO
39	AREA 1-TOPO, UTILITY STRUCTURES	VARIES	RW 35 APPROACH	VARIES	NONE	NO	52	TREE CLUSTER WITH HIGH POINT DEPICTED	354	RW 35 APPROACH/DISPLACED APPROACH	30/14	TRIM OR REMOVE	NO	65	AREA 12-TOPO, BLDGS, LIGHT/UTIL. POLES	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO
40	AREA 2-(2) BLDGS, (2) RTR ANTENNAS	VARIES	RW 35 DISPLACED APPROACH	VARIES	FIXED BY FUNCTION	YES	53	TREE CLUSTER WITH HIGH POINT DEPICTED	341	RW 35 APPROACH/DISPLACED APPROACH	24/8	TRIM OR REMOVE	NO	66	TREE CLUSTER WITH HIGH POINT DEPICTED	415	RW 35 APPROACH/DISPLACED APPROACH	46/30	TRIM OR REMOVE	NO
41	PETTINGILL ROAD	293	RW 35 DISPLACED APPROACH	26	NONE	NO	54	TREE CLUSTER WITH HIGH POINT DEPICTED	366	RW 35 APPROACH/DISPLACED APPROACH	46/30	TRIM OR REMOVE	NO	67	TREE CLUSTER WITH HIGH POINT DEPICTED	413	RW 35 APPROACH/DISPLACED APPROACH	47/31	TRIM OR REMOVE	NO
42	AREA 4-BLDGS, LIGHT/UTIL. POLES, FENCE	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO	55	AREA 8-BLDGS, LIGHT/UTIL. POLES, SIGNS	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO	68	AREA 9-BLDGS, LIGHT/UTIL. POLES, SIGNS	VARIES	RW 35 APPROACH/DISPLACED APPROACH	VARIES	LIGHT	NO

A detailed map showing a coastal landscape. The map features a beach area with dark and light-colored zones, a lagoon or body of water, and a forested area with various symbols representing different types of vegetation. A north arrow is located in the upper left quadrant. Below the map is a horizontal scale bar labeled "HORIZONTAL SCALE IN FEET" with markings at 0, 200, and 400. At the bottom is a vertical scale bar labeled "VERTICAL SCALE IN FEET" with markings at 0, 20, and 40.

**PREPARED FOR**

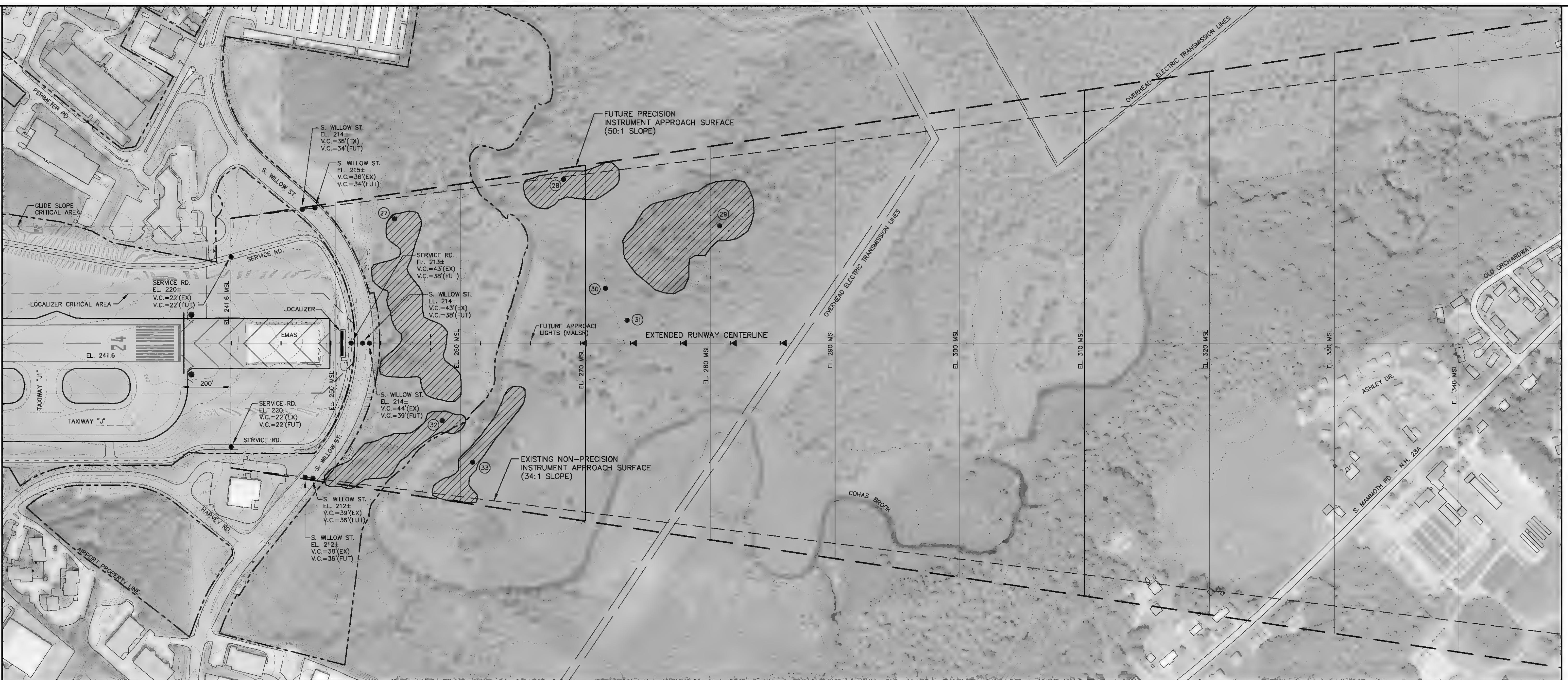
**CITY OF MANCHESTER**  
**DEPARTMENT OF AVIATION**  
**MANCHESTER, NEW HAMPSHIRE**

# **MANCHESTER-BOSTON REGIONAL AIRPORT**

**URS Corporation Southern**  
7650 West Courtney  
Campbell Causeway

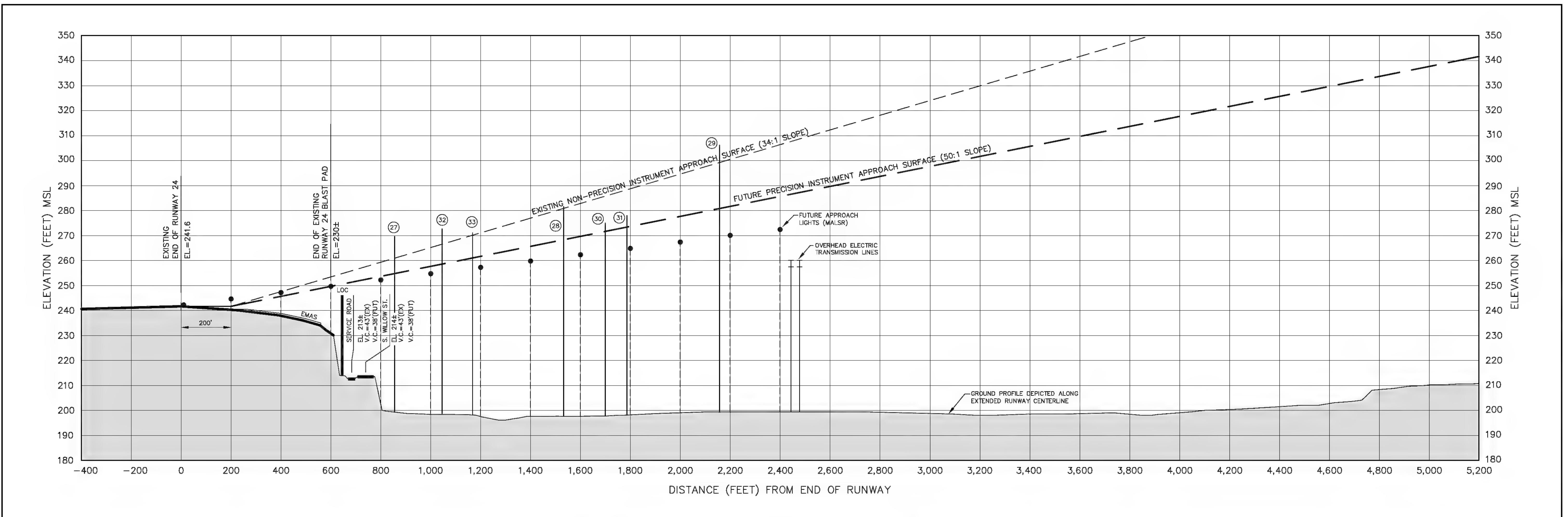
Manchester-Boston





## **RUNWAY 24 INNER PORTION OF THE APPROACH SURFACE PLAN VIEW**

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## RUNWAY 24 INNER PORTION OF THE APPROACH SURFACE PROFILE VIEW

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OBSTACLE DATA TABLE						
No.	Description	Obstacle Elevation Feet (MSL)	Lowest Affected Surface	Penetration (Feet)	Recommended Action	Lighted
27	TREE CLUSTER WITH HIGH POINT DEPICTED	270	EX RW 24 APPROACH FUT RW 24 APPROACH	9 15	TRIM OR REMOVE	NO
28	TREE CLUSTER WITH HIGH POINT DEPICTED	282	EX RW 24 APPROACH FUT RW 24 APPROACH	1 14	TRIM OR REMOVE	NO
29	TREE CLUSTER WITH HIGH POINT DEPICTED	306	EX RW 24 APPROACH FUT RW 24 APPROACH	7 26	TRIM OR REMOVE	NO
30	TREE CLUSTER WITH HIGH POINT DEPICTED	275	FUT RW 24 APPROACH	3	TRIM OR REMOVE	NO
31	TREE CLUSTER WITH HIGH POINT DEPICTED	278	FUT RW 24 APPROACH	5	TRIM OR REMOVE	NO
32	TREE CLUSTER WITH HIGH POINT DEPICTED	273	EX RW 24 APPROACH FUT RW 24 APPROACH	7 14	TRIM OR REMOVE	NO
33	TREE CLUSTER WITH HIGH POINT DEPICTED	271	EX RW 24 APPROACH FUT RW 24 APPROACH	1 10	TRIM OR REMOVE	NO

## LEGEND

OBSTRUCTION NUMBER.

A scale bar diagram consisting of two horizontal bars. The top bar is labeled "HORIZONTAL SCALE IN FEET" and has tick marks at 0, 20, and 40. The bottom bar is labeled "VERTICAL SCALE IN FEET" and also has tick marks at 0, 20, and 40.

**PREPARED FOR**

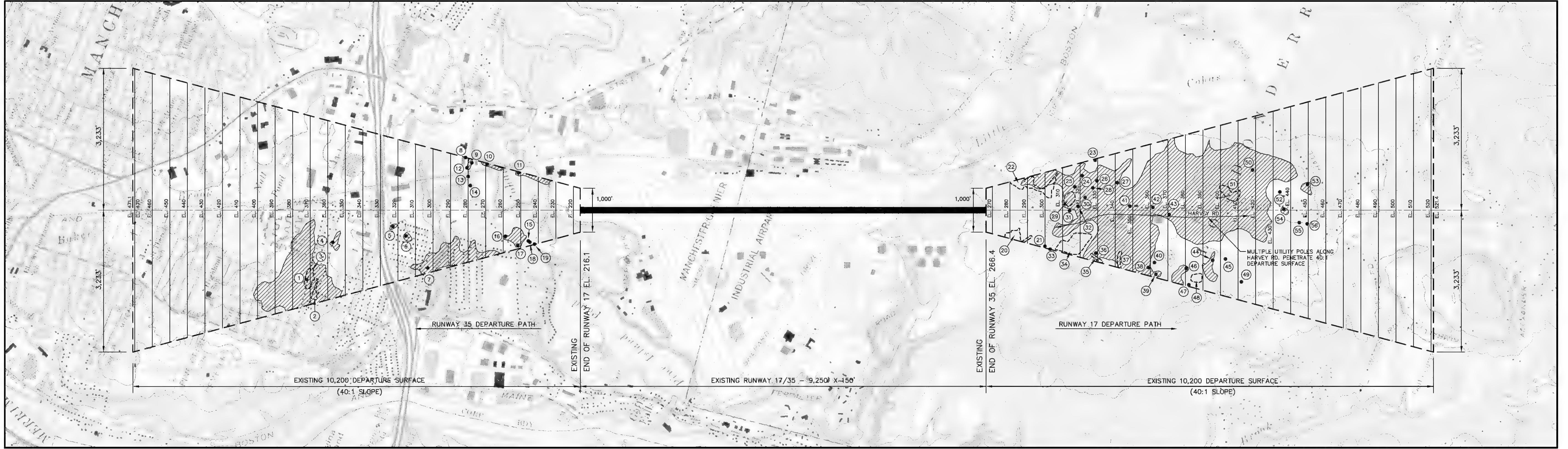
**CITY OF MANCHESTER**  
**DEPARTMENT OF AVIATION**  
**MANCHESTER, NEW HAMPSHIRE**

# **INNER PORTION OF THE APPROACH SURFACE DRAWING - RUNWAY 24**

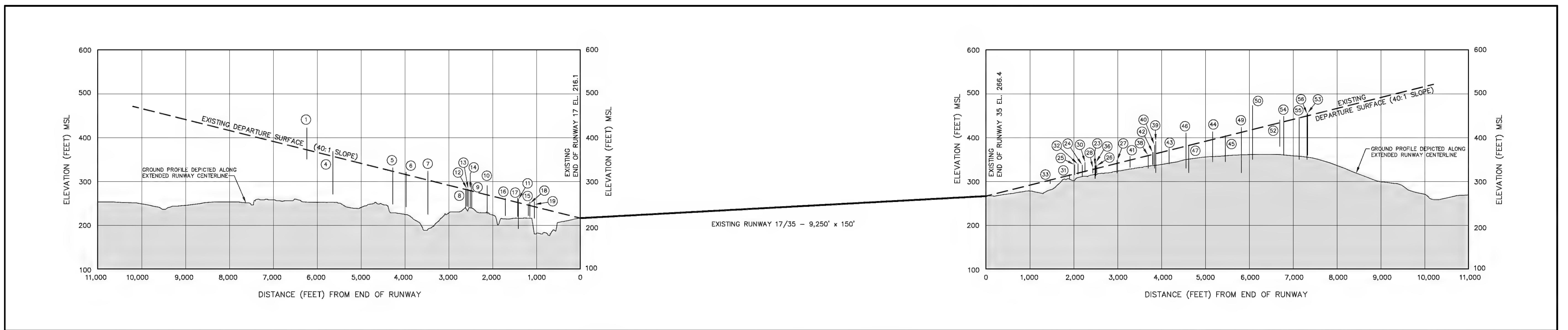
Corporation Southern  
West Courtney  
Cochell Causeway

Manhattan Doctor

# MANCHESTER-BUSI-UN REGIONAL AIRPORT MANCHESTER NEW HAMPSHIRE



RUNWAY 17/35 DEPARTURE SURFACES PLAN VIEW



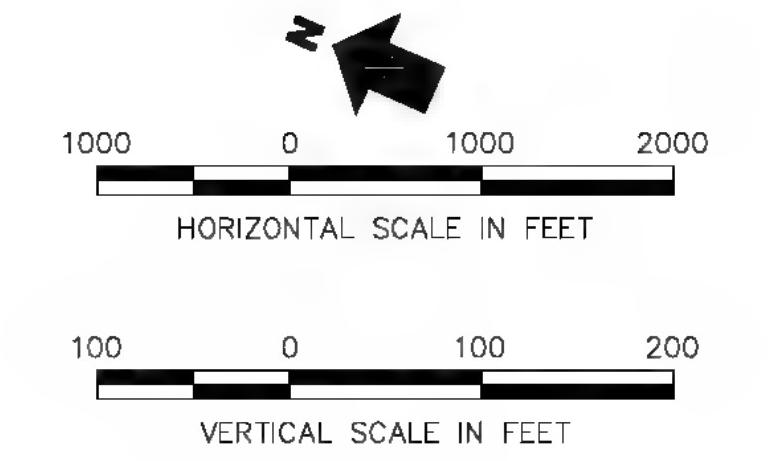
RUNWAY 17/35 DEPARTURE SURFACES PROFILE VIEW

OBSTACLE DATA TABLE													
NO.	DESCRIPTION	OBSTACLE ELEMENT	LOWEST ATTACHED SURFACE	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED	NO.	DESCRIPTION	OBSTACLE ELEMENT	LOWEST ATTACHED SURFACE	PENETRATION (FEET)	RECOMMENDED ACTION	LIGHTED
1	TREE CLUSTER WITH HIGH POINT DEPICTED	422	RW 35 40:1 DEPARTURE	.50	TRIM OR REMOVE	NO	29	GROUND TOPO, BUILDING, FENCE	VARES	RW 17 40:1 DEPARTURE	.50	LIGHT	NO
2	BUILDING, UTILITY POLES	423	RW 35 40:1 DEPARTURE	VARES	TRIM OR REMOVE	NO	30	BUILDING	343	RW 17 40:1 DEPARTURE	2	LIGHT	NO
3	UTILITY POLE, SIGN	283	RW 35 40:1 DEPARTURE	VARES	TRIM OR REMOVE	NO	31	UTILITY POLE	348	RW 17 40:1 DEPARTURE	2	LIGHT	NO
4	TREE CLUSTER WITH HIGH POINT DEPICTED	368	RW 35 40:1 DEPARTURE	11	TRIM OR REMOVE	NO	32	BUILDING	340	RW 17 40:1 DEPARTURE	21	LIGHT	NO
5	TREE CLUSTER WITH HIGH POINT DEPICTED	331	RW 35 40:1 DEPARTURE	8	TRIM OR REMOVE	NO	33	BUILDING	304	RW 17 40:1 DEPARTURE	1	LIGHT	NO
6	TREE CLUSTER WITH HIGH POINT DEPICTED	321	RW 35 40:1 DEPARTURE	6	TRIM OR REMOVE	NO	34	LIGHT POLES	348	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO
7	TREE CLUSTER WITH HIGH POINT DEPICTED	323	RW 35 40:1 DEPARTURE	20	TRIM OR REMOVE	NO	35	LIGHT POLES	348	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO
8	LIGHT POLE	283	RW 35 40:1 DEPARTURE	2	TRIM OR REMOVE	NO	36	LIGHT POLES	348	RW 17 40:1 DEPARTURE	15	LIGHT	NO
9	TREE CLUSTER WITH HIGH POINT DEPICTED	285	RW 35 40:1 DEPARTURE	17	TRIM OR REMOVE	NO	37	UTILITY POLES, FENCE	348	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO
10	TREE CLUSTER WITH HIGH POINT DEPICTED	290	RW 35 40:1 DEPARTURE	21	TRIM OR REMOVE	NO	38	UTILITY POLE	360	RW 17 40:1 DEPARTURE	1	LIGHT	NO
11	TREE CLUSTER WITH HIGH POINT DEPICTED	286	RW 35 40:1 DEPARTURE	9	TRIM OR REMOVE	NO	39	GROUND TOPO	391	RW 17 40:1 DEPARTURE	28	REGRADE	NO
12	UTILITY POLE	283	RW 35 40:1 DEPARTURE	2	TRIM OR REMOVE	NO	40	BUILDING	363	RW 17 40:1 DEPARTURE	21	LIGHT	NO
13	UTILITY POLE	286	RW 35 40:1 DEPARTURE	2	TRIM OR REMOVE	NO	41	UTILITY POLE	337	RW 17 40:1 DEPARTURE	9	LIGHT	NO
14	UTILITY POLE	281	RW 35 40:1 DEPARTURE	2	TRIM OR REMOVE	NO	42	BUILDING	366	RW 17 40:1 DEPARTURE	4	LIGHT	NO
15	BUILDING	249	RW 35 40:1 DEPARTURE	3	TRIM OR REMOVE	NO	43	UTILITY POLE	375	RW 17 40:1 DEPARTURE	4	LIGHT	NO
16	UTILITY POLE	281	RW 35 40:1 DEPARTURE	2	TRIM OR REMOVE	NO	44	TREE CLUSTER WITH HIGH POINT DEPICTED	413	RW 17 40:1 DEPARTURE	17	TRIM OR REMOVE	NO
17	TREE CLUSTER WITH HIGH POINT DEPICTED	285	RW 35 40:1 DEPARTURE	10	TRIM OR REMOVE	NO	45	TREE CLUSTER WITH HIGH POINT DEPICTED	404	RW 17 40:1 DEPARTURE	1	TRIM OR REMOVE	NO
18	UTILITY POLE	253	RW 35 40:1 DEPARTURE	8	TRIM OR REMOVE	NO	46	TREE CLUSTER WITH HIGH POINT DEPICTED	410	RW 17 40:1 DEPARTURE	32	TRIM OR REMOVE	NO
19	UTILITY POLE	254	RW 35 40:1 DEPARTURE	12	TRIM OR REMOVE	NO	47	UTILITY POLE	396	RW 17 40:1 DEPARTURE	4	LIGHT	NO
20	GROUND TOPO, BUILDINGS, UTILITY POLES, FENCE	286	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO	48	UTILITY POLES	VARES	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO
21	UTILITY POLE, LIGHT POLE, SIGN	286	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO	49	TREE CLUSTER WITH HIGH POINT DEPICTED	423	RW 17 40:1 DEPARTURE	11	TRIM OR REMOVE	NO
22	GROUND TOPO, FIRE HYDRANT, SIGNS	286	RW 17 40:1 DEPARTURE	VARES	LIGHT	NO	50	TREE CLUSTER WITH HIGH POINT DEPICTED	473	RW 17 40:1 DEPARTURE	55	TRIM OR REMOVE	NO
23	UTILITY POLE	338	RW 17 40:1 DEPARTURE	7	TRIM OR REMOVE	NO	51	UTILITY POLE	493	RW 17 40:1 DEPARTURE	1	TRIM OR REMOVE	NO
24	BUILDING	337	RW 17 40:1 DEPARTURE	18	TRIM OR REMOVE	NO	52	TREE CLUSTER WITH HIGH POINT DEPICTED	440	RW 17 40:1 DEPARTURE	6	TRIM OR REMOVE	NO
25	BUILDING	338	RW 17 40:1 DEPARTURE	21	TRIM OR REMOVE	NO	53	TREE CLUSTER WITH HIGH POINT DEPICTED	458	RW 17 40:1 DEPARTURE	6	TRIM OR REMOVE	NO
26	BUILDING	336	RW 17 40:1 DEPARTURE	6	TRIM OR REMOVE	NO	54	TREE CLUSTER WITH HIGH POINT DEPICTED	448	RW 17 40:1 DEPARTURE	12	TRIM OR REMOVE	NO
27	BUILDING	348	RW 17 40:1 DEPARTURE	7	TRIM OR REMOVE	NO	55	TREE CLUSTER WITH HIGH POINT DEPICTED	446	RW 17 40:1 DEPARTURE	1	TRIM OR REMOVE	NO
28	BUILDING	330	RW 17 40:1 DEPARTURE	3	TRIM OR REMOVE	NO	56	TREE CLUSTER WITH HIGH POINT DEPICTED	454	RW 17 40:1 DEPARTURE	5	TRIM OR REMOVE	NO

**LEGEND**

- AREA OF TOPOGRAPHY PENETRATION (I.E. GROUND, BUILDINGS, UTILITY POLES, ETC.) WITHIN 40:1 DEPARTURE SURFACE. SEE OBSTACLE DATA TABLE FOR DESCRIPTION OF OBSTACLES WITHIN EACH AREA.
- AREA OF TOPOGRAPHY PENETRATION (I.E. GROUND, BUILDINGS, UTILITY POLES, ETC.) WITHIN 40:1 DEPARTURE SURFACE. SEE OBSTACLE DATA TABLE FOR DESCRIPTION OF OBSTACLES WITHIN EACH AREA.

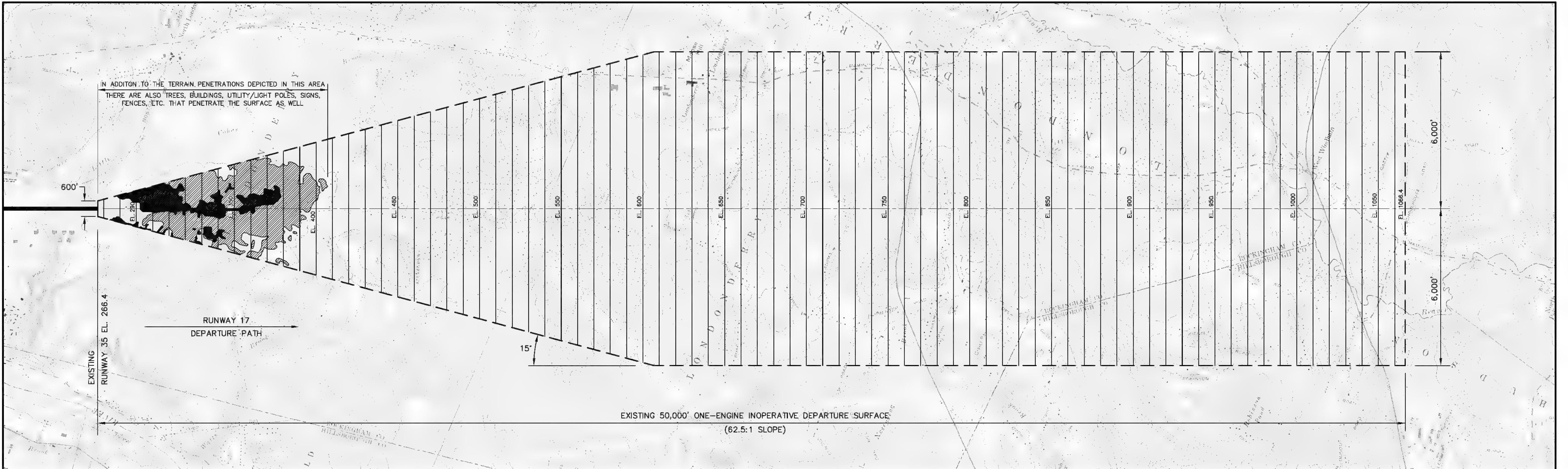
BASE MAP: USGS 7.5 QUADRANGLE MAPS  
OBSTACLE DATA: FEDERAL AVIATION ADMINISTRATION DIGITAL AERONAUTICAL INFORMATION DIGITAL OBSTACLE FILE, EFFECTIVE JUNE, 2010.  
HOYT, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS, DATED SEPTEMBER, 2009.



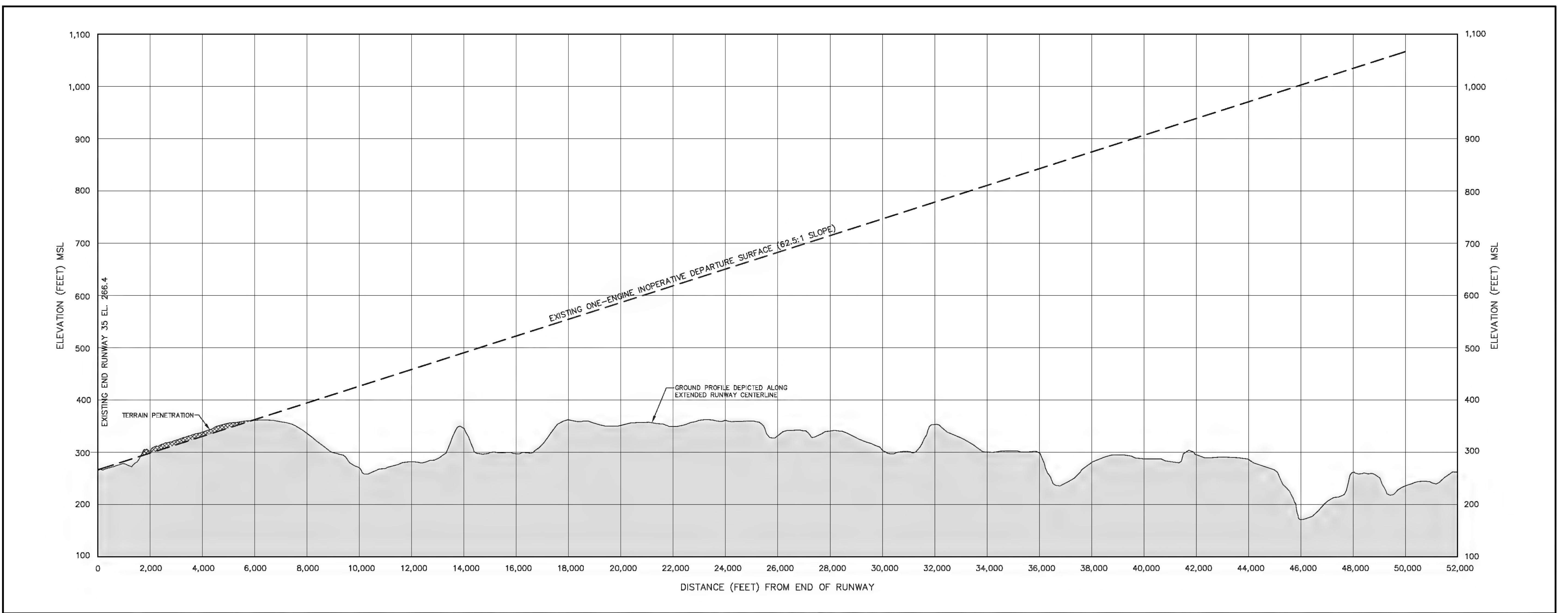
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Manchester-Boston Regional Airport

**DEPARTURE SURFACES  
DRAWING - RUNWAY 17/35**  
**MANCHESTER-BOSTON REGIONAL AIRPORT  
MANCHESTER, NEW HAMPSHIRE**  
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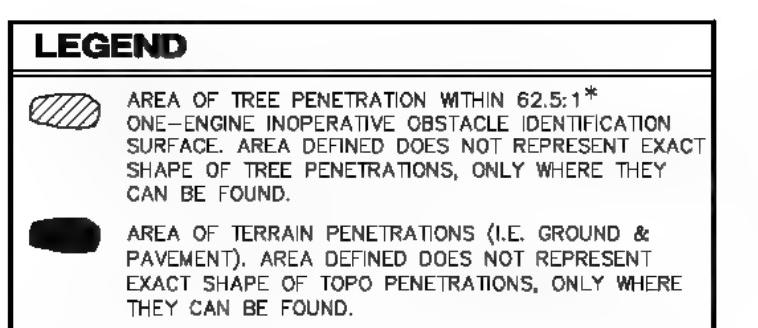
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RUNWAY 17 ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE PLAN VIEW

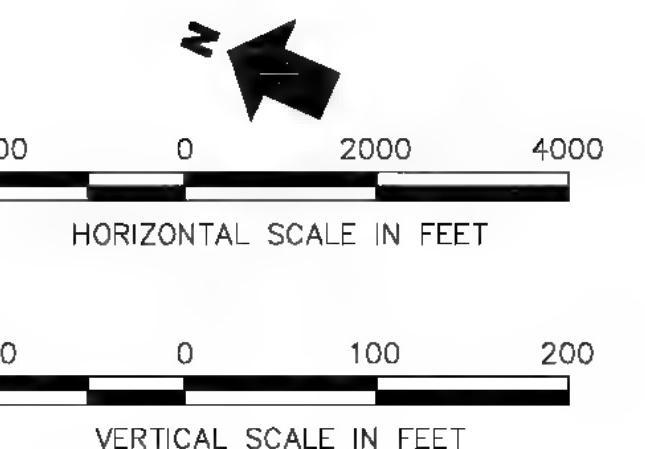


RUNWAY 17 ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE PROFILE VIEW



\* TERRAIN PENETRATION AREAS SHOWN LIMITED TO EXTENT OF TOPOGRAPHICAL OBSTACLE DATA AVAILABLE FROM THE NOELLE, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS, DATED SEPTEMBER, 2009.

SOURCES:  
BASE MAP: USGS 7.5' QUADRANGLE MAPS  
OBSTACLE DATA: FEDERAL AVIATION ADMINISTRATION DIGITAL AERONAUTICAL INFORMATION DIGITAL OBSTACLE FILE  
EFFECTIVE DATE: 09/01/2009  
HOYLE, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS,  
DATED SEPTEMBER, 2009.



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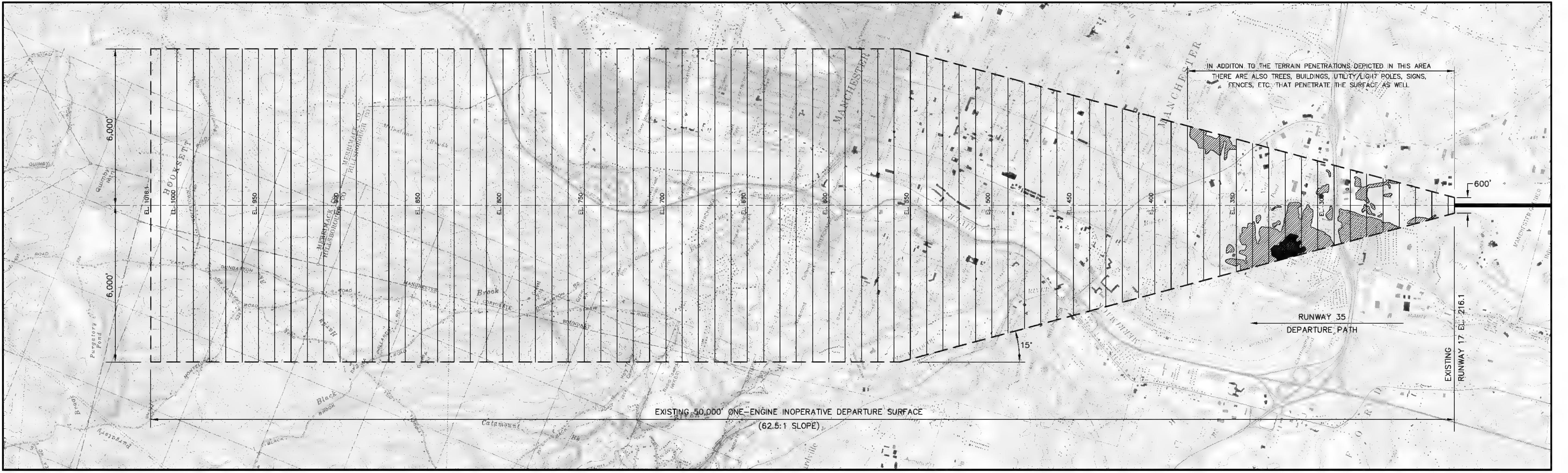
**ONE-ENGINE INOPERATIVE  
OBSTACLE IDENTIFICATION SURFACE  
RUNWAY 17**  
**MANCHESTER-BOSTON REGIONAL AIRPORT  
MANCHESTER, NEW HAMPSHIRE**

URS  
U.S. Consulting Services  
Toll Free Call Center  
Customer Care Center  
Phone 1-800-386-7711

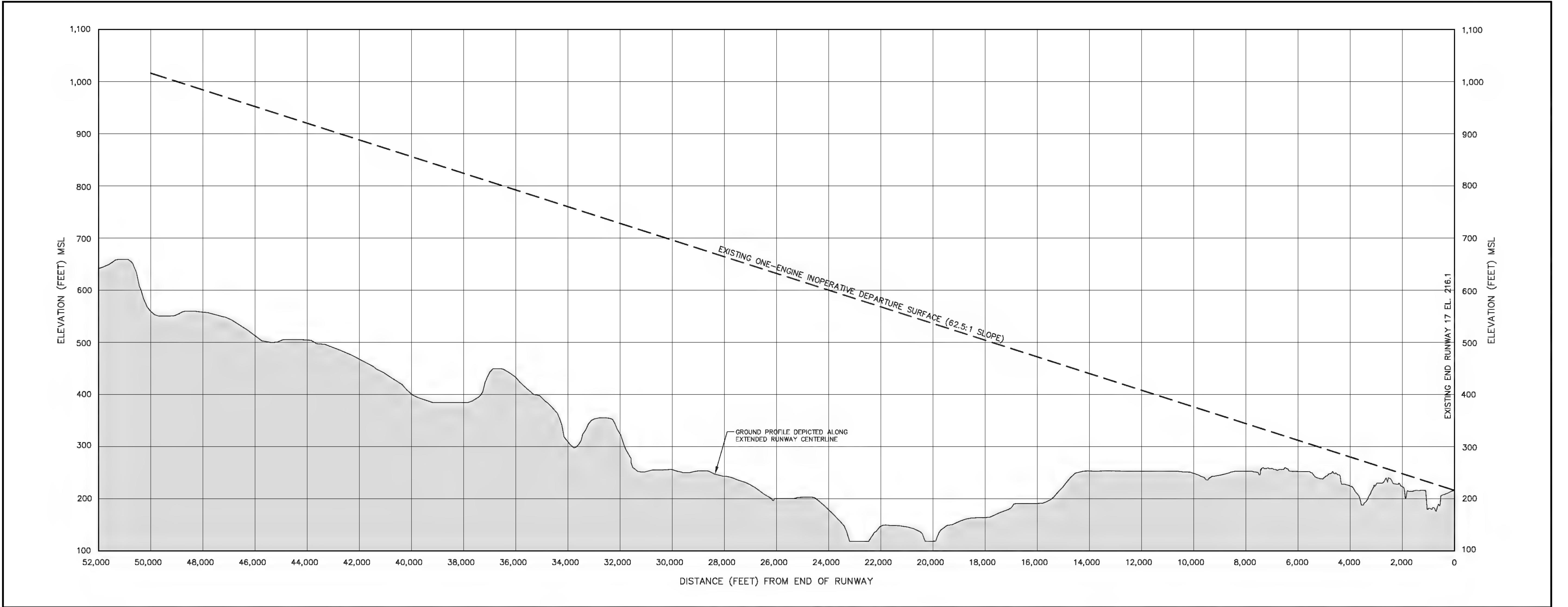
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RUNWAY 35 ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE PLAN VIEW



RUNWAY 35 ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE PROFILE VIEW

**LEGEND**

- AREA OF TREE PENETRATION WITHIN 62.5:1\*
- ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE. THIS DEFINED AREA DOES NOT REPRESENT THE EXACT SHAPE OF TREE PENETRATION, ONLY WHERE THEY CAN BE FOUND.
- AREA OF TERRAIN PENETRATION (OR GROUND & PARKING) WITHIN 62.5:1. THIS DEFINED AREA DOES NOT REPRESENT THE EXACT SHAPE OF TOP PENETRATIONS, ONLY WHERE THEY CAN BE FOUND.

\* TERRAIN PENETRATION AREAS SHOWN LIMITED TO EXTENT OF TOPOGRAPHICAL OBSTACLE DATA AVAILABLE FROM THE ROYAL, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS, DATED SEPTEMBER, 2009.

**SOURCES:**  
BASE MAP: USGS 7.5' QUADRANGLE MAPS  
OBSTACLE DATA: FEDERAL AVIATION ADMINISTRATION DIGITAL AERONAUTICAL INFORMATION DIGITAL OBSTACLE FILE, RELEASED JUNE 2009  
ROYAL, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS, DATED SEPTEMBER, 2009.

HORIZONTAL SCALE IN FEET  
2000 0 2000 4000  
VERTICAL SCALE IN FEET  
100 0 100 200

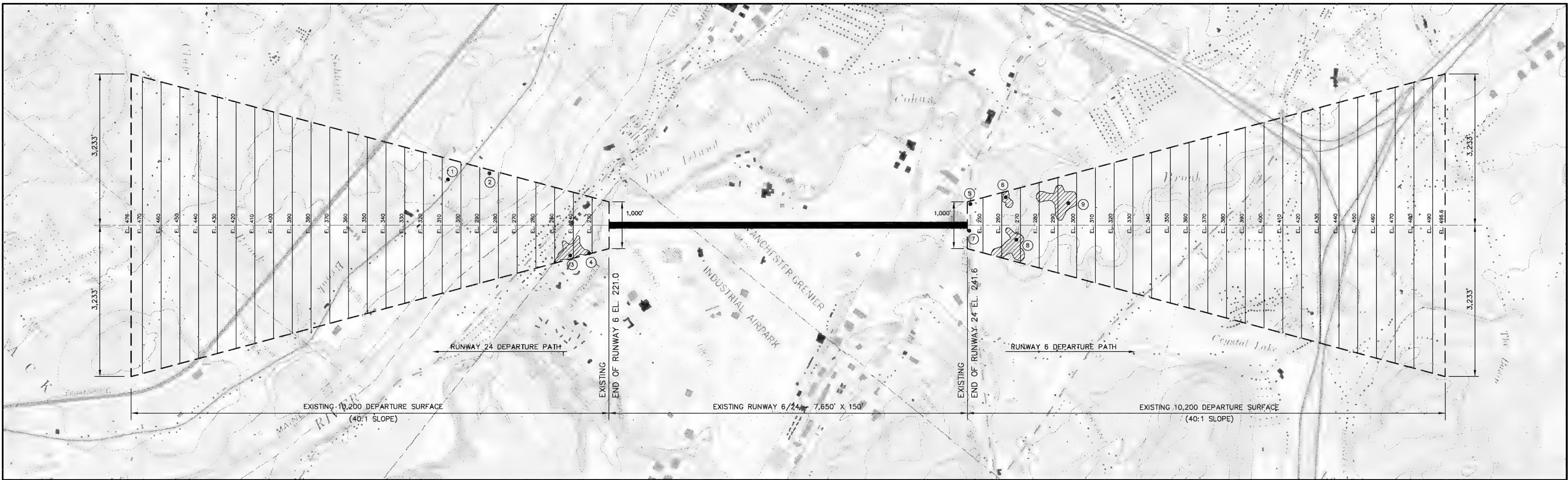
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**ONE-ENGINE INOPERATIVE  
OBSTACLE IDENTIFICATION SURFACE  
RUNWAY 35**  
**MANCHESTER-BOSTON REGIONAL AIRPORT  
MANCHESTER, NEW HAMPSHIRE**

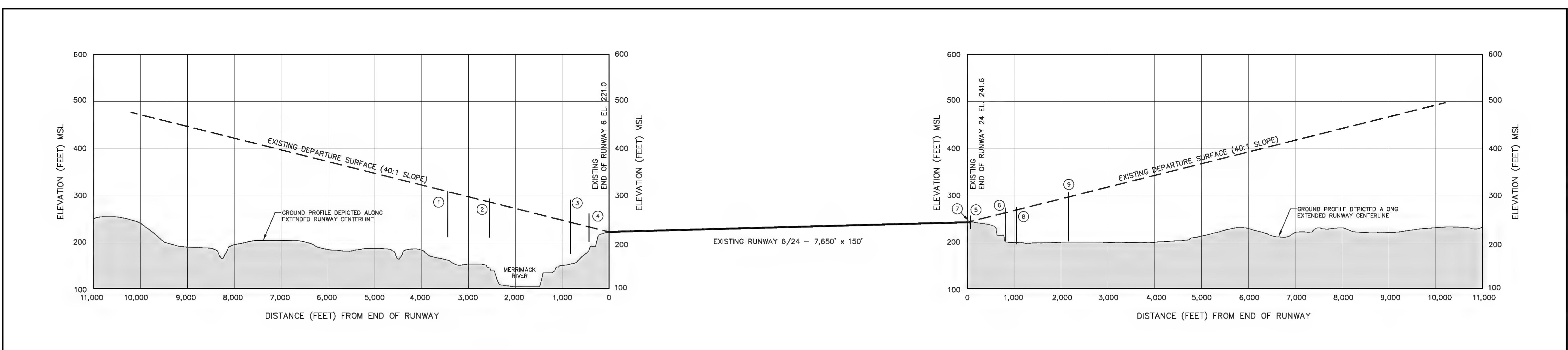
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# RUNWAY 6/24 DEPARTURE SURFACES PLAN VIEW



# RUNWAY 6/24 DEPARTURE SURFACES PROFILE VIEW

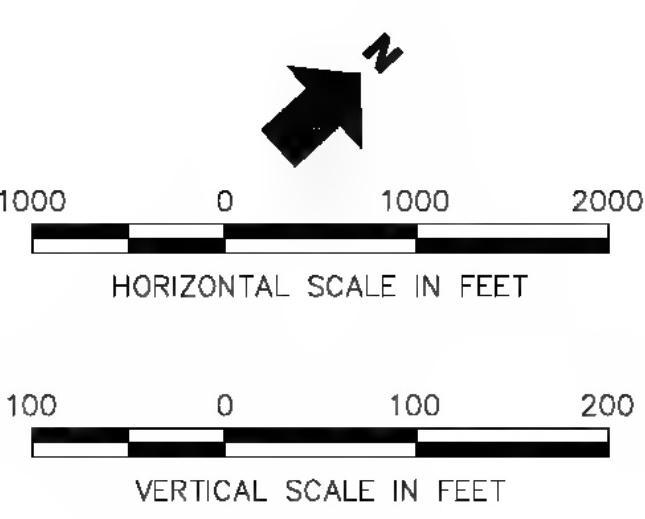
OBSTACLE DATA TABLE						
No.	Description	Obstacle Elevation Feet (MSL)	Lowest Affected Surface	Penetration (feet)	Recommended Action	Lighted
1	TREE CLUSTER WITH HIGH POINT DEPICTED	308	RW 24 40:1 DEPART	1	TRIM OR REMOVE	NO
2	TREE CLUSTER WITH HIGH POINT DEPICTED	291	RW 24 40:1 DEPART	6	TRIM OR REMOVE	NO
3	TREE CLUSTER WITH HIGH POINT DEPICTED	289	RW 24 40:1 DEPART	47	TRIM OR REMOVE	NO
4	BUILDING	260	RW 24 40:1 DEPART	28	LIGHT	NO
5	LIGHT POLE	255	RW 6 40:1 DEPART	12	LIGHT	NO
6	TREE CLUSTER WITH HIGH POINT DEPICTED	272	RW 6 40:1 DEPART	10	TRIM OR REMOVE	NO
7	REIL	244	RW 6 40:1 DEPART	1	FIXED BY FUNCTION	NO
8	TREE CLUSTER WITH HIGH POINT DEPICTED	273	RW 6 40:1 DEPART	5	TRIM OR REMOVE	NO
9	TREE CLUSTER WITH HIGH POINT DEPICTED	265	RW 6 40:1 DEPART	10	TRIM OR REMOVE	NO

## **LEGEND**

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 AREA OF TREE PENETRATION WITHIN 40:1  
DEPARTURE SURFACE. AREA DEFINED DOES NOT  
REPRESENT EXACT SHAPE OF TREE PENETRATIONS,  
ONLY WHERE THEY CAN BE FOUND. WITHIN EACH  
AREA A HIGH POINT IS DEPICTED WITH A POINT AND

SOURCES:  
BASE MAP: USGS 7.5' QUADRANGLE MAPS  
OBSTACLE DATA: FEDERAL AVIATION ADMINISTRATION DIGITAL  
AERONAUTICAL INFORMATION DIGITAL OBSTACLE FILE  
EFFECTIVE JUNE, 2010.  
HOYLE, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS.



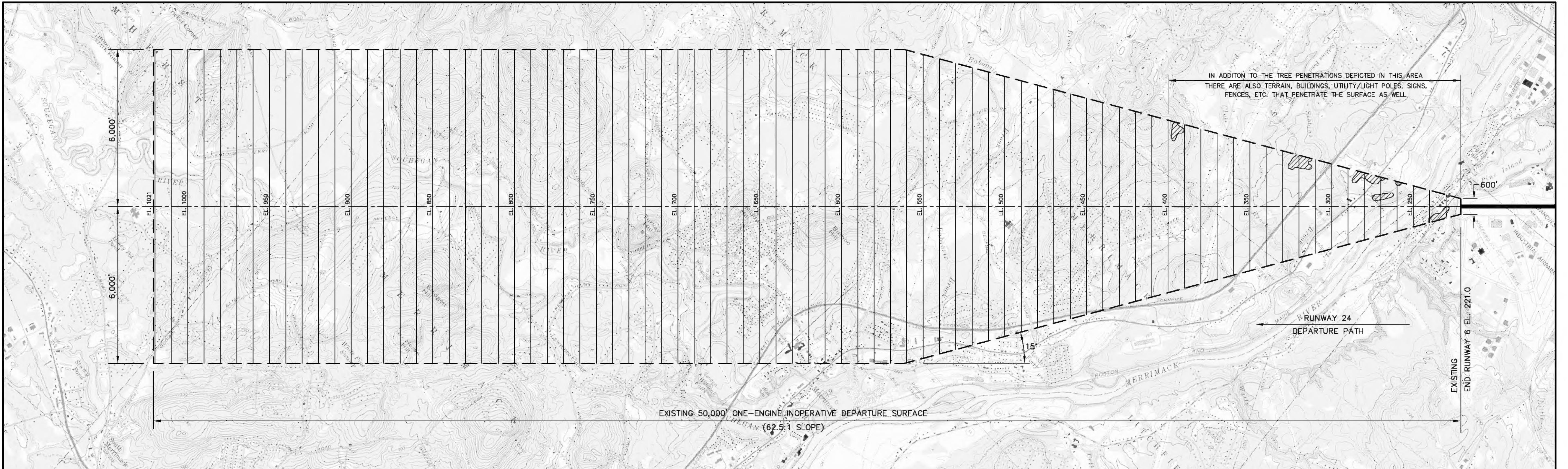
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# **DEPARTURE SURFACES DRAWING - RUNWAY 6/24**

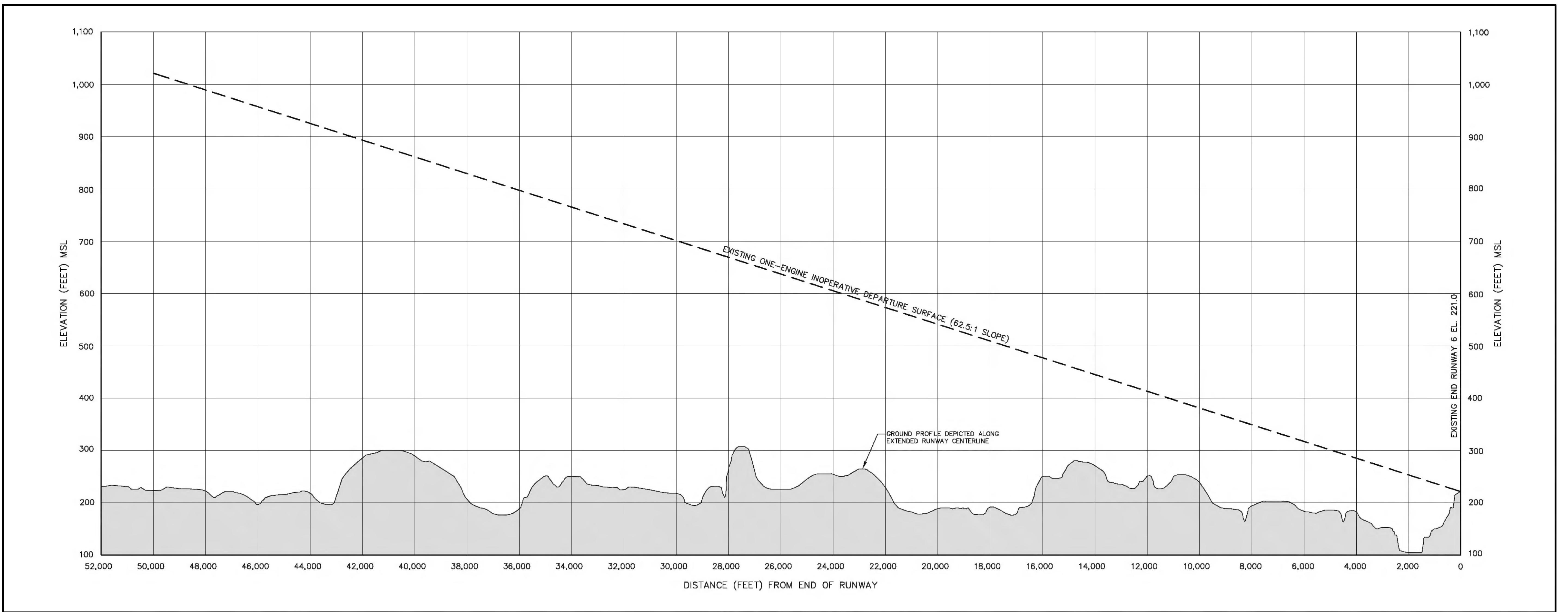
# **MANCHESTER-BOSTON REGIONAL AIRPORT**

## **MANCHESTER, NEW HAMPSHIRE**





RUNWAY 24 ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE PLAN VIEW



RUNWAY 24 ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE PROFILE VIEW

**LEGEND**

- Area of tree penetration, within 62.5:1= slope of inoperative obstacle identification surface. Area defined does not represent exact shape of tree penetrations, only where they can be found.

\* TERRAIN PENETRATION AREAS SHOWN LIMITED TO EXTENT OF TOPOGRAPHICAL OBSTACLE DATA AVAILABLE FROM THE HOYLE, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS, DATED SEPTEMBER, 2009.

**SOURCES:**  
BASE MAP: USGS 7.5" QUADRANGLE MAPS  
OBSTACLE DATA: FEDERAL AVIATION ADMINISTRATION DIGITAL AERONAUTICAL INFORMATION DIGITAL OBSTACLE FILE  
EFFECIVE JUNE 2009  
HOYLE, TANNER & ASSOC., INC., OBSTRUCTION ANALYSIS,  
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2000 0 2000 4000  
HORIZONTAL SCALE IN FEET

100 0 100 200  
VERTICAL SCALE IN FEET

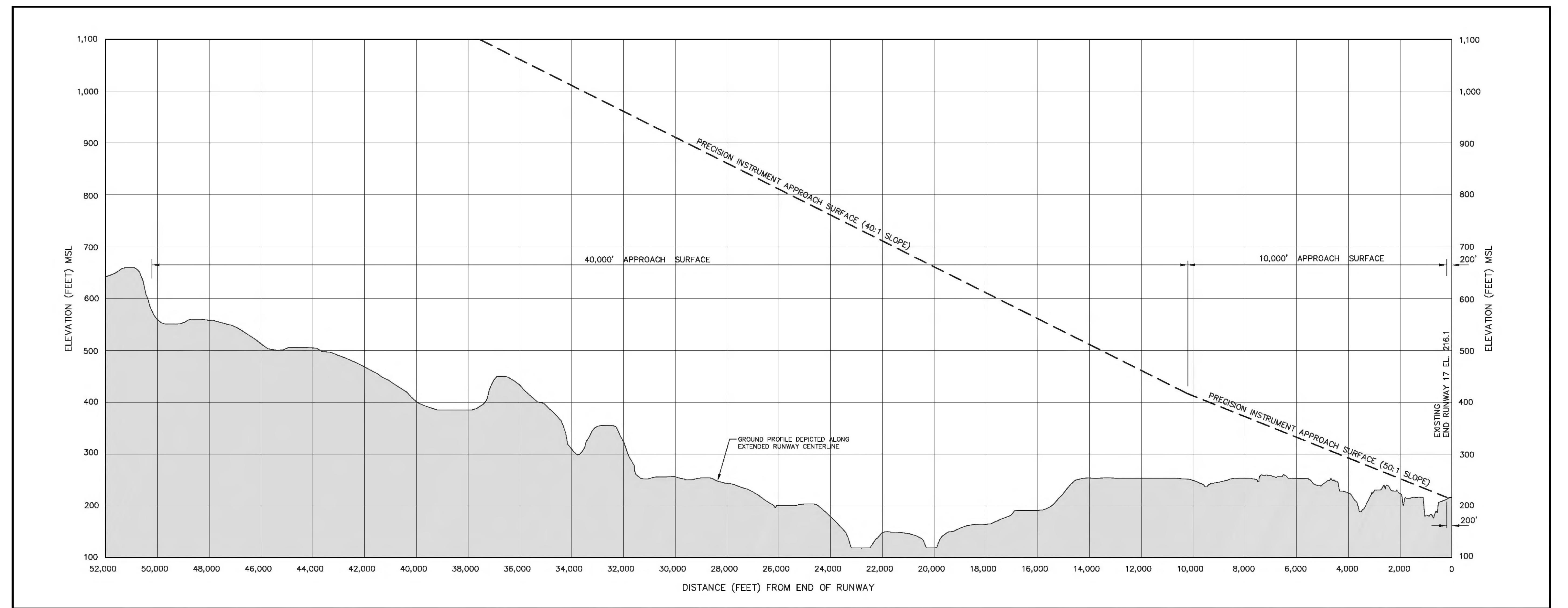
**ONE-ENGINE INOPERATIVE OBSTACLE IDENTIFICATION SURFACE  
RUNWAY 24**

**MANCHESTER-BOSTON REGIONAL AIRPORT  
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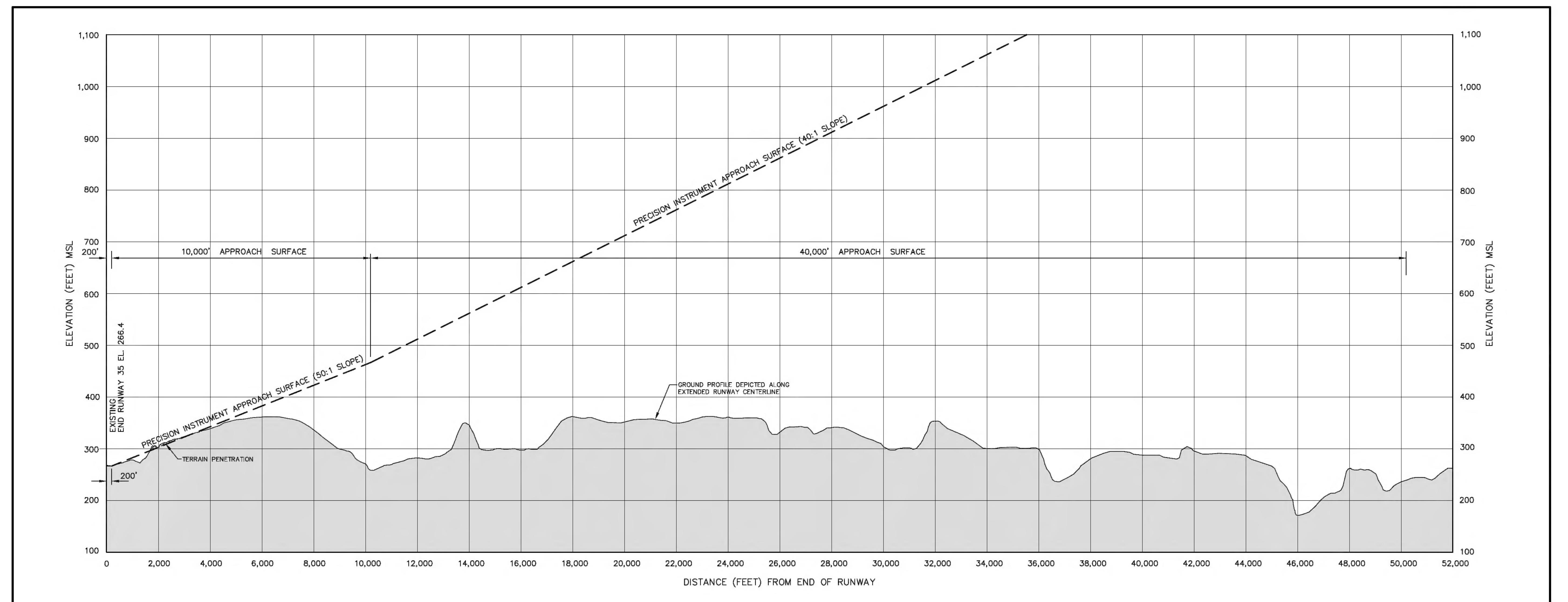
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**RUNWAY 17 APPROACH SURFACE PROFILE VIEW**



**RUNWAY 35 APPROACH SURFACE PROFILE VIEW**

**APPROACH SURFACE PROFILE  
RUNWAY 17/35**

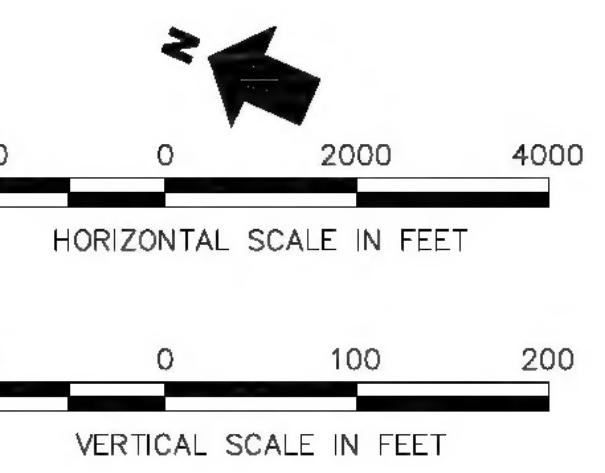
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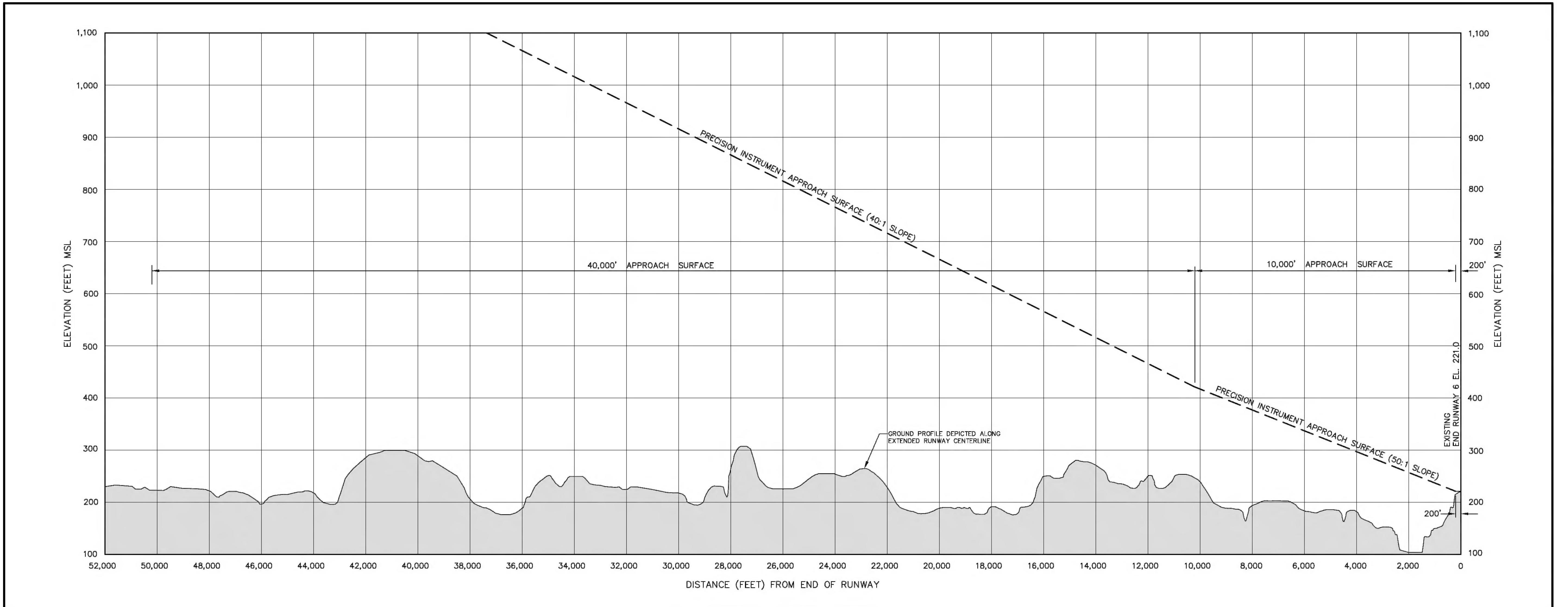
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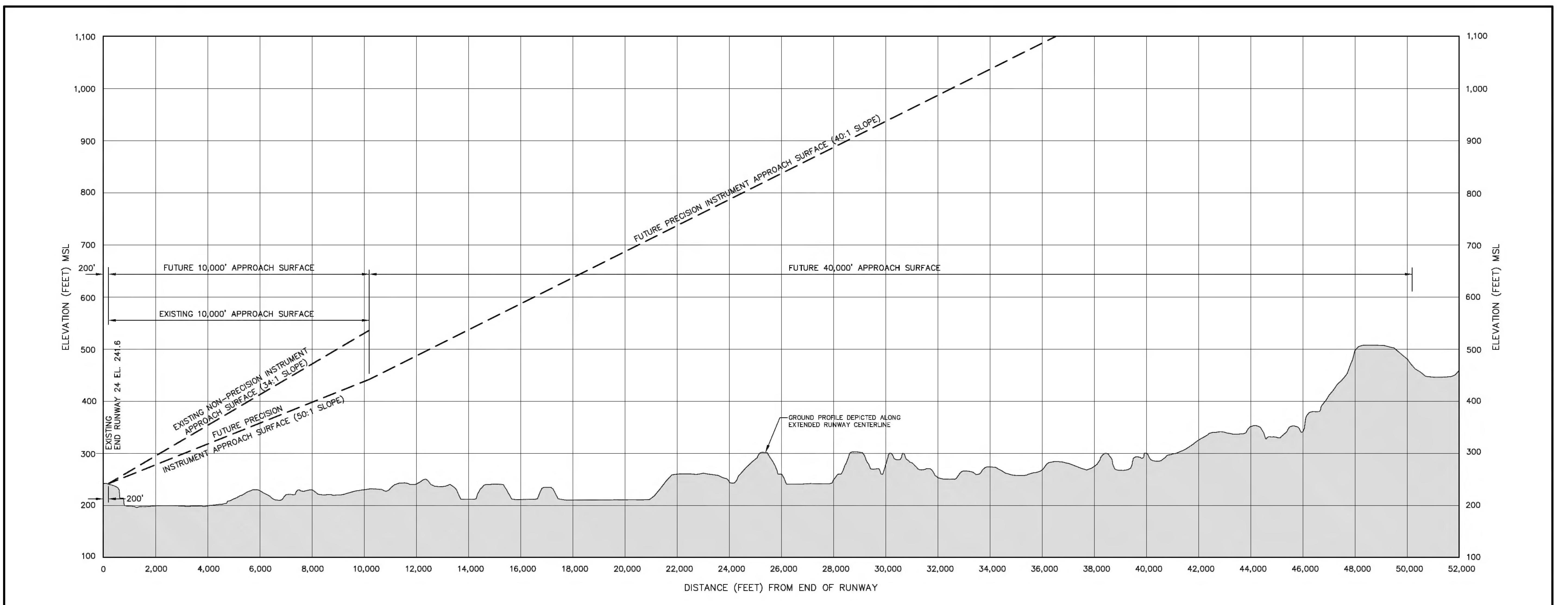
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DESIGNED: RJM  
DRAWN: RJM CHECKED: MLT  
PROJECT MANAGER: FMN  
PROJECT DIRECTOR: FMN



**RUNWAY 6 APPROACH SURFACE VIEW**



**RUNWAY 24 APPROACH PROFILE VIEW**

**APPROACH SURFACE PROFILE  
RUNWAY 6/24**

**MANCHESTER-BOSTON REGIONAL AIRPORT  
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Project No. 131-286-7711

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Manchester-Boston  
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DRAWN: RJM CHECKED: MLT  
PROJECT MANAGER: FMN  
PROJECT DIRECTOR: FMN

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